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STIPULATIONS FOR THE ALASKA NATURAL GAS TRANSPORTATION SYSTEM

May 7, 1979

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NOTE TO REVIEWERS:

These stipulations will be incorporated in the several grants of rights-of-way which the Department of the Interior will issue to authorize the construction of the Alaska Natural Gas Transportation System on Federal lands. Any temporary use of Federal lands that is necessary prior or subsequent to the issuance of those grants will be authorized by temporary use permits which will contain site-specific requirements designed to protect the lands affected from environmental damage.

These stipulations address the general environmental and technical requirements which the Department of the Interior has determined to be necessary for inclusion in the right-of-way grants in order to protect the environment, public health and safety and the integrity of the pipeline system. Provisions for other requirements, such as equal employment opportunity, minority business enterprise and liability, will be covered either in regulations or elsewhere in the grants and are therefore not addressed in these stipulations. Additional requirements which other concerned Federal agencies deem necessary to fulfill their particular statutory requirements will be specified in the individual authorizations issued by those agencies.

Written comments should be submitted no later than June 22, 1979 to the Office of the Project Manager, Alaska Natural Gas Transportation System, (105) Department of the Interior, Washington, D. C. 20240.

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STIPULATIONS
ALASKA

1. GENERAL

1.1. DEFINITIONS

1.1.1. The following definitions apply to terms used in these Stipulations. They shall also apply to terms used in documents to which these Stipulations are attached unless specifically provided otherwise in such documents.

1.1.2. The "AGENCY" means the Federal agency which has issued the authorization of which this Exhibit is a part.

1.1.3. "AUTHORIZED OFFICER" means the employee of the AGENCY to whom the head of the AGENCY has delegated the authority to administer the authorization of which this Exhibit is a part, or an employee so designated by an AGENCY with enforcement functions transferred to the FEDERAL INSPECTOR by Reorganization Plan No. 1 of 1979.

1.1.4. The "COMPANY" means Alaskan Northwest Natural Gas Transportation Company, its successors and assigns.

1.1.5. "CONSTRUCTION MODE" means the type of construction to be employed generally with regard to the PIPELINE (e.g., whether the pipe will be buried or elevated).

1.1.6. "CONSTRUCTION SEGMENT" means a portion of the PIPELINE SYSTEM, as agreed upon by the COMPANY and the FEDERAL INSPECTOR, that constitutes a complete physical entity or stage, in and of itself, which can be constructed, independently of any other portion or stage of the PIPELINE SYSTEM in a designated area or between two given geographical points.

1.1.7. "FEDERAL INSPECTOR" means the officer appointed by the President with the advice and consent of the Senate pursuant to Section 7(a)(5) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719e, and Reorganization Plan No. 1 of 1979.

1.1.8. "FEDERAL LANDS" means all lands owned by the United States except lands in the National Park System, lands held in trust for an Indian or Indian tribe, and lands on the Outer Continental Shelf.

1.1.9. "FINAL DESIGN" means completed design documents suitable for bid advertisement, including contract plans and specifications; proposed CONSTRUCTION MODES; operational requirements necessary to justify designs; design analysis (including calculations for each particular design feature); all functional and engineering criteria; summaries of engineering tests conducted and their results; and other considerations pertinent to design.

1.1.10. "GAS" means a gaseous mixture, principally of methane and other paraffinic hydrocarbons, suitably conditioned to an acceptable specification for transportation by the PIPELINE.

1.1.11. "HAZARDOUS SUBSTANCES" means OIL, toxic, or HAZARDOUS SUBSTANCES as defined by the Environmental Protection Agency, the Department of Transportation or as specified in writing by the FEDERAL INSPECTOR in consultation with the Environmental Protection Agency's and the Department of Transportation's AUTHORIZED OFFICERS during the review of the COMPANY'S HAZARDOUS SUBSTANCES plan.

1.1.12. "NOTICE TO PROCEED" means a written permission to initiate PIPELINE SYSTEM construction that is issued in accordance with Stipulation 1.7.

1.1.13. "OIL" means oil of any kind or any form, including but not limited to fuel oil, sludge, oil refuse, and oil mixed with WASTE other than dredged spoil.

1.1.14. "PIPELINE" means the line of pipe and RELATED FACILITIES authorized on FEDERAL LANDS by the United States Department of the Interior by Right-of-Way Grant No._____.

1.1.15. "PIPELINE SYSTEM" means all facilities on FEDERAL LANDS which are constructed or used by the COMPANY pursuant to the Alaska Natural Gas Transportation Act in connection with the construction, operation, maintenance or termination of the PIPELINE. The term includes the PIPELINE and its RELATED FACILITIES; it does not include facilities used by others in the production, gathering or conditioning of GAS. The term also includes temporary facilities and temporary use areas used by the COMPANY for the construction, operation, maintenance, or termination of the PIPELINE. It does not include facilities, such as urban administrative offices, which are only indirectly involved in the transportation of GAS.

1.1.16. "PRELIMINARY DESIGN" means the establishment of project criteria (i.e., construction, including design, and operational concepts) necessary to delineate the project to be constructed. As a minimum, it includes the following: criteria to be used for the FINAL DESIGN and project concepts; evaluation of field data used to establish the design criteria; drawings showing functional and technical requirements; reports of all test data compiled during the data collection, and PRELIMINARY DESIGN evaluation; standard drawings (if applicable) or drawings to support structural design concepts of each typical facility or structure; proposed CONSTRUCTION MODES; outline of project specifications; sample computations to support the design; and concepts and bases for project siting.

1.1.17. A. "RELATED FACILITIES" means those structures, devices, improvements and sites on FEDERAL LANDS, other than the pipe, the substantially continuous use of which is necessary for the operation and maintenance of the PIPELINE. RELATED FACILITIES includes, if applicable: supporting structures; access roads; compressor stations, including associated buildings, structures, yards and fences; valves and other control devices and structures housing them; bridges, culverts and low-water crossings; monitoring and communication

devices and structures housing them; yards and structures; retaining walls, berms, dikes, ditches, cuts and fills, including hydraulic control structures; structures and areas for storing supplies and equipment; cathodic protection devices; and other facilities of a similar nature as the AUTHORIZED OFFICER shall determine to be RELATED FACILITIES.

B. "RELATED FACILITIES" does not mean those facilities used by the COMPANY only temporarily, such as construction camps, temporary roads and temporary airstrips.

1.1.18. "ROADS" means roads on FEDERAL LANDS, other than State or public highways, that are constructed or used by the COMPANY in connection with the construction, operation, maintenance or termination of the PIPELINE SYSTEM.

1.1.19. "TRANS-ALASKA PIPELINE SYSTEM" means that pipeline system referred to in and authorized by the Trans-Alaska Pipeline Authorization Act, Title II, P.L. 93-153, 87 Stat. 584.

1.1.20. "WETLANDS" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. WETLANDS generally include swamps, marshes, bogs, and similar areas.

1.2. APPLICABILITY

1.2.1. These Stipulations set forth the general standards of environmental and construction performance, and the procedures for the submission and approval of construction plans and environmental safeguards, that are required by Section III, 1, of the Terms and Conditions set forth in the Decision and Report to Congress on the Alaska Natural Gas Transportation System which was transmitted to the Congress by the President on September 22, 1977, pursuant to the Alaska Natural Gas Transportation Act of 1976, 15 U.S.C. §§ 719, et seq.

1.2.2. During the construction, operation, maintenance and termination of the PIPELINE SYSTEM, the COMPANY shall comply with these Stipulations. Although the Stipulations provide for enforcement by the FEDERAL INSPECTOR, it is intended that the Stipulations shall also be enforced by the AUTHORIZED OFFICER, as provided in Reorganization Plan No. 1 of 1979.

1.2.3. The following conditions shall apply to the construction, operation, maintenance, and termination of the PIPELINE SYSTEM. Unless clearly inapplicable, the requirements and prohibitions imposed upon the COMPANY by these Stipulations are also imposed upon the COMPANY'S agents, employees, contractors, and subcontractors, and the employees of each of them. (1) The COMPANY shall ensure compliance with these Stipulations by its agents, employees, and contractors (including subcontractors at any level), and the employees of each of them. (2) Failure or refusal of the COMPANY'S agents, employees

contractors, subcontractors, or their employees to comply with these Stipulations shall be deemed to be the failure or refusal of the COMPANY. (3) Where appropriate the COMPANY shall require its agents, employees, contractors and subcontractors to include these Stipulations in all contracts and subcontracts which are entered into by any of them, together with a provision that the other contracting party, together with its agents, employees, contractors and subcontractors, and the employees of each of them, shall likewise be bound to comply with these Stipulations. (4) In consonance with Section 9 of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, Federal agencies issuing and enforcing these Stipulations shall not impose any other environmental or technical Stipulations generally applicable to FEDERAL LANDS unless specifically mandated by Federal statute; however, this shall not preclude the imposition of terms and conditions by Federal agencies, also in consonance with Section 9 of the Alaska Natural Gas Transportation Act, to accommodate site-specific concerns.

1.2.4. Nothing in these Stipulations shall be construed as applying to activities of the COMPANY that have no relation to the PIPELINE SYSTEM.

1.2.5. In the implementation of the authorization of which these Stipulations are a part, the following principles shall apply:

(1) In the construction, operation, maintenance (including but not limited to a continuing and reasonable program of preventive maintenance) and termination of the PIPELINE SYSTEM, the COMPANY shall employ all practicable means and measures to preserve and protect the environment, as provided in these Stipulations.

(2) The COMPANY and the FEDERAL INSPECTOR shall balance environmental amenities and values with economic practicalities and technical capabilities, so as to be consistent with applicable national policies. In so doing, they shall take into account, among other considerations, the following:

(a) The benefit or detriment to persons, property and the environment that may be anticipated to result from a proposed course of conduct;

(b) The particular environmental, technical, and economic benefits or detriments reasonably expected to flow from a proposed course of conduct;

(c) The effect on the energy needs of the United States, including the possible effects of a disruption of national or regional GAS supply, that may result from a particular course of conduct.

(3) The COMPANY shall manage, supervise and implement the construction, operation, maintenance and termination of the PIPELINE SYSTEM in accordance with safe and proven engineering practice, to the extent allowed by the state of the art and the development of technology. In the exercise of these functions, the COMPANY consents and shall submit to such review, inspection and compliance procedures relating to construction, operation, maintenance and termination of the PIPELINE SYSTEM as are provided for in these Stipulations and applicable authorizations.

These Stipulations are not intended in any way to derogate from, or be construed as being inconsistent with, applicable provisions of law.

1.2.6. Nothing in these Stipulations shall be construed to affect any right or cause of action that otherwise would be available to the COMPANY against any person. The United States and the COMPANY do not intend to create any rights under these Stipulations that may be enforced by third parties for their own benefit or for the benefit of others.

1.3. RESPONSIBILITIES

1.3.1. Subject to Section 9(d) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, the COMPANY shall comply with these Stipulations and lawful orders of the FEDERAL INSPECTOR implementing these Stipulations.

1.3.2. The authority and obligations of the FEDERAL INSPECTOR, as provided in these Stipulations, shall be exercised and met by the FEDERAL INSPECTOR during the period when the Office of the FEDERAL INSPECTOR is in existence pursuant to the provisions of Reorganization Plan No. 1 of 1979. Prior to the establishment of the Office of the FEDERAL INSPECTOR, and upon the termination of that Office, the authority and obligations of the FEDERAL INSPECTOR shall be performed by the appropriate officers of the Federal agencies normally having jurisdiction over such matters.

1.3.3. Failure of the COMPANY to comply with these Stipulations and implementing orders of the FEDERAL INSPECTOR shall constitute grounds for appropriate enforcement action by the FEDERAL INSPECTOR pursuant to the authority vested in him by law.

1.3.4. The COMPANY shall designate a representative who shall be empowered on behalf of the COMPANY to communicate with, and to receive and comply with, all communications and orders of the FEDERAL INSPECTOR. The COMPANY shall also designate field representatives who shall be authorized to communicate and cooperate with field representatives of the FEDERAL INSPECTOR. The COMPANY shall keep the FEDERAL INSPECTOR informed of any change of the COMPANY'S representatives during the construction, operation, maintenance, and termination of the PIPELINE SYSTEM.

1.3.5. The FEDERAL INSPECTOR may require the COMPANY at any time to furnish any or all data related to construction, operation, maintenance, and termination activities undertaken in connection with the PIPELINE SYSTEM as may be reasonably relevant to the FEDERAL INSPECTOR'S responsibilities in connection with construction, operation, maintenance, and termination of the PIPELINE SYSTEM; provided, however, that access to such documents is not prohibited or limited by law or regulation, and provided further that any such data furnished shall be subject to the provisions of the Freedom of Information Act, 5 U.S.C. § 552. The FEDERAL INSPECTOR shall impose such a requirement in writing, specifying the data required, the desired date and place of delivery, and the medium to be employed, taking into consideration the time reasonably required to provide the data and the costs involved.

1.3.6. Consonant with the provisions of Section 9(d) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719(g), and prior to the issuance of a NOTICE TO PROCEED, the FEDERAL INSPECTOR may by written order require the COMPANY to make such modification of the PIPELINE SYSTEM as he deems necessary to: protect or maintain stability of foundation and other earth materials, protect or maintain integrity of the PIPELINE SYSTEM; control or prevent serious or irreparable damage to the environment (including but not limited to fish and wildlife populations or their habitats); or remove hazards to public health and safety. Any modification of facilities not yet under construction, ordered in connection with the issuance of a NOTICE TO PROCEED, shall be made without liability or expense to the United States.

1.3.7. The absence of any comment by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER on any plan, design, specification, or other document which may be filed by the COMPANY with the FEDERAL INSPECTOR shall not be deemed to represent in any way whatever any assent to, approval of, or concurrence in such plan, design, specification of other document, or any action proposed therein. Nevertheless, on any matter necessary or related to the construction and initial operation of the PIPELINE SYSTEM which requires action by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER there is an obligation to act expeditiously in compliance with Subsections 9(a) and (b) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g. Any written approval or instruction by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER may be relied upon by the COMPANY unless and until rescinded in writing.

1.3.8. The FEDERAL INSPECTOR and the Alaska State Pipeline Coordinator shall have a continuing right of access to any part of the PIPELINE SYSTEM at any time for inspection or monitoring and for any other purpose or reason that is reasonably consistent with their responsibilities. This right may be exercised by the FEDERAL INSPECTOR and the Alaska State Pipeline Coordinator and their agents and representatives designated in writing; and contractors and subcontractors of the FEDERAL INSPECTOR or the State Pipeline Coordinator performing work related to the PIPELINE SYSTEM. The FEDERAL INSPECTOR shall prepare procedures to implement this Stipulation, including reasonable advance notification where practicable.

1.3.9. No order or notice given to the COMPANY on behalf of the FEDERAL INSPECTOR shall be effective as to the COMPANY unless prior written notice of the delegation of authority to issue such order or notice has been given to the COMPANY.

1.3.10. Prior to beginning work on any aspect of the Alaska Natural Gas Transportation System, the COMPANY will furnish all supervisory-level employees with copies of these Stipulations and will explain the limitations imposed by these Stipulations.

1.3.11. Where adequate meals, living quarters, office space, communications systems, and reasonable surface and air transportation are not reasonably available on a commercial basis, the COMPANY shall to the extent practicable furnish representatives of the United States designated by the FEDERAL INSPECTOR all or some of these facilities or services on a reimbursable basis during construction, operation, maintenance, and termination of the PIPELINE SYSTEM. Prior to the start of construction in any location where the COMPANY will be required to make these facilities and services available, the FEDERAL INSPECTOR shall furnish the COMPANY, for planning purposes only, an estimate of the total number of persons for whom these facilities and services may be required. Except for emergenices or where the presence of Federal representatives is needed to resolve problems affecting the expeditious construction and operation of the PIPELINE SYSTEM, the FEDERAL INSPECTOR shall give the COMPANY advance written notice of the need for such facilities and services required. Such notification shall also briefly describe the purpose of the visit.

1.4. COMMUNICATIONS

1.4.1. During the period of construction and initial operation of the PIPELINE SYSTEM, all formal written communications between the COMPANY and the AGENCY of the AUTHORIZED OFFICER involving construction, operation, maintenance, or termination of the PIPELINE SYSTEM shall be transmitted through the FEDERAL INSPECTOR or as he may direct. However, documents required by statute or AGENCY regulation to be filed with the AGENCY shall be filed as so required, provided that a copy (or copies) thereof is concurrently filed with the FEDERAL INSPECTOR.

1.4.2. Any written notice or communication, including any telegram, relating to any subject, addressed to the FEDERAL INSPECTOR from the COMPANY, shall be deemed to have been delivered to and received by the FEDERAL INSPECTOR when the notice or communication has been delivered either by messenger during normal business hours, or by means of registered or certified United States mail, postage prepaid, return receipt requested, to the Office of the FEDERAL INSPECTOR.

1.4.3. Any written order, notice, or other written communication, including any telegram, relating to any subject, that is addressed to the COMPANY from the FEDERAL INSPECTOR shall be deemed to have been delivered to and received by the COMPANY when the order, notice or other communication

has been delivered either by messenger during normal business hours, or by means of registered or certified United States mail, postage prepaid, return receipt requested to the office of the representative designated by the COMPANY pursuant to Stipulation 1.3.4.

1.4.4. All orders or approvals of the FEDERAL INSPECTOR shall be in writing, but in emergencies may be issued orally, with subsequent confirmation in writing as soon as possible thereafter, but not later than 24 hours.

1.5. SUMMARY NETWORK ANALYSIS DIAGRAMS

1.5.1. As a part of the PRELIMINARY DESIGN, the COMPANY shall submit a summary network analysis diagram for the project to the FEDERAL INSPECTOR for review and approval. As mutually agreed to by the COMPANY and the FEDERAL INSPECTOR, the summary network analysis diagram shall include all engineering and construction-related activities and contingencies which reasonably may be anticipated in connection with the project. The summary network analysis diagram shall include or address:

(1) data collection activities;
(2) submittal and approval activities;
(3) construction and post construction activities;
(4) schedule control techniques; and
(5) other pertinent data.

The summary network analysis diagram shall be prepared employing techniques normal to the industry in sufficient detail and scope to permit the FEDERAL INSPECTOR to determine if the management approach shown or inferred by the network analysis will facilitate the cost-effective, environmentally sound and timely construction of the project.

1.5.2. The summary network analysis diagram shall be initially prepared and updated to reflect major changes at intervals mutually agreeable to the COMPANY and the FEDERAL INSPECTOR.

1.6. PLANS AND PROGRAMS

1.6.1. The COMPANY shall submit a PRELIMINARY DESIGN to the FEDERAL INSPECTOR. It shall also submit comprehensive plans and/or programs which shall include but not be limited to the following:

1. Environmental briefings
2. OIL and HAZARDOUS SUBSTANCES discharges
3. Air quality
4. Pesticides, herbicides, chemicals
5. Solid waste management
6. Liquid waste management
7. Erosion control
8. Stream crossings
9. Material extraction
10. Overburden and excess material disposal
11. Clearing

12. Visual Resources
13. Blasting
14. Restoration
15. PIPELINE contingency
16. Quality assurance/quality control
17. Surveillance and maintenance
18. Cultural resource preservation
19. Fire control
20. WETLAND construction

These plans and programs may be combined as appropriate.

1.6.2. The PRELIMINARY DESIGN and the plans and programs specified in Stipulation 1.6.1. shall be approved in writing by the FEDERAL INSPECTOR and shall be complied with by the COMPANY. The COMPANY and the FEDERAL INSPECTOR shall agree to the scope and content of the required plans and the schedule for submission and approval of the required plans and programs.

1.6.3. The COMPANY shall furnish detailed and/or site-specific plans or programs to the FEDERAL INSPECTOR as needed as the basis for requesting a NOTICE TO PROCEED in accordance with Stipulation 1.7.

1.7. NOTICE TO PROCEED

1.7.1. The COMPANY shall not initiate any field activity on FEDERAL LANDS pursuant to the authorization of which these Stipulations are a part without the prior specific permission of the FEDERAL INSPECTOR. Such permission for construction activites shall be given solely by a written NOTICE TO PROCEED issued by the FEDERAL INSPECTOR. Any NOTICE TO PROCEED shall permit field activities only as therein expressly stated and only for the particular field activities therein described. A NOTICE TO PROCEED may contain such site-specific terms and conditions as the FEDERAL INSPECTOR deems necessary.

1.7.2. Before applying for a NOTICE TO PROCEED, the COMPANY shall, in such manner as shall be acceptable to the FEDERAL INSPECTOR, by survey, locate and clearly mark on the ground the proposed centerline of the line of pipe, the location of all RELATED FACILITIES and, where applicable, clearing limits and the location of temporary use areas in the proposed work area.

1.7.3. Each application for a NOTICE TO PROCEED shall be supported by:

(1) A FINAL DESIGN or plan for that portion of the project with computations supporting the design.

(2) All applicable reports and results of environmental studies.

(3) All data necessary to demonstrate compliance with all Stipulations related to the particular activity.

(4) A detailed network analysis diagram for the CONSTRUCTION SEGMENT or SEGMENTS including: the COMPANY'S work schedules, applicable permits required by State and Federal agencies, design and review periods, data collection activities, and construction sequencing. The detailed network analysis diagram shall be updated as required to reflect current status of the project.

(5) A quality assurance program as specified in Stipulation 1.8.

(6) A map or maps, prepared in such manner as shall be acceptable to the FEDERAL INSPECTOR, depicting the proposed location of: (1) the boundaries of all associated temporary use areas, and (2) all improvements, buried or aboveground, that are to be constructed. The FEDERAL INSPECTOR shall not issue a NOTICE TO PROCEED until all relevant locations on the ground have been approved by the FEDERAL INSPECTOR and temporary boundary markers have been set by the COMPANY to the satisfaction of the FEDERAL INSPECTOR.

(7) Justification statements for all proposed design features or activities which may not be in conformance with these Stipulations.

(8) Detailed and/or site specific plans as specified in Stipulation 1.6.3.

(9) An analysis which addresses the effects of proposed activities on the TRANS-ALASKA PIPELINE SYSTEM.

1.7.4. Prior to submission of any applications for NOTICES TO PROCEED, the COMPANY and the FEDERAL INSPECTOR shall agree to a schedule for the submission, review and approval of such applications and on the scope of information to be contained therein. The schedule shall allow the FEDERAL INSPECTOR at least 120 days for review of each complete application for a NOTICE TO PROCEED. The schedule may be revised by mutual agreement, if necessary.

1.7.5. The FEDERAL INSPECTOR shall review each application for a NOTICE TO PROCEED and all data submitted in connection therewith in accordance with schedules as agreed upon pursuant to Stipulation 1.7.4.

1.7.6. The FEDERAL INSPECTOR shall issue a NOTICE TO PROCEED only when, in his judgment, applicable FINAL DESIGNS and other submissions required by Stipulations 1.6.1., 1.6.3. and 1.7.3. conform to these Stipulations.

1.7.7. By written order, following appropriate consultation with the COMPANY, the FEDERAL INSPECTOR may revoke or suspend in whole or in part any NOTICE TO PROCEED which has been issued when in his judgment unforeseen conditions later arising require alterations in

the NOTICE TO PROCEED in order to: protect or maintain stability of foundation and earth materials; protect or maintain integrity of the PIPELINE SYSTEM; control or prevent serious or irreparable damage to the environment (including but not limited to fish or wildlife populations or their habitats); or remove hazards to public health and safety. The FEDERAL INSPECTOR shall expeditiously follow his revocation or suspension order with a more detailed written statement of the reason for the action.

1.8. QUALITY ASSURANCE AND CONTROL

1.8.1. The quality assurance and quality control programs shall be comprehensive and designed to assure that the applicable requirements of 49 CFR, Part 192 and environmental and technical Stipulations will be complied with throughout all phases of construction, operation, maintenance and termination of the PIPELINE SYSTEM. The COMPANY shall provide for continuous inspection of PIPELINE construction to ensure compliance with the approved design specifications and these Stipulations. The term "continous inspection" as used in this Stipulation means that at least one inspector is observing each PIPELINE construction operation where PIPELINE integrity is involved (e.g., the pipe gang, backend welders, weld nondestructive testing, coating and wrapping, bedding, lowering-in, padding and backfill) at all times while that construction is being performed.

1.8.2. At a minimum, the following shall be included in the quality assurance program:

1.8.2.1. Procedures for the detection and prompt abatement of any actual or potential condition that is susceptible to abatement by the COMPANY, that could reasonably be expected to arise out of, or affect adversely, construction, operation, maintenance, or termination of all or any part of the PIPELINE SYSTEM, and that at any time may cause or threaten to cause (a) a hazard to the safety of workers or to public health or safety, including but not limited to personal injury or loss of life of any persons, or (b) harm or damage to the environment, including but not limited to areas of vegetation or timber, fish or other wildlife populations or their habitats, or any other natural resource.

1.8.2.2. Procedures for the repair and replacement of improved or tangible property and the rehabilitation of natural resources (including but not limited to REVEGETATION, restocking fish or other wildlife populations, and reestablishing their habitats) that shall be seriously damaged or destroyed if the immediate cause of the damage or destruction arose in connection with, or results from, construction, operation, maintenance, or termination of all or any part of the PIPELINE SYSTEM.

1.8.2.3. Methods and procedures for achieving component and subsystems quality through proper design and specification.

1.8.2.4. Methods for incorporating quality assurance and quality control criteria in the selection of the COMPANY'S contractors, subcontractors, and contract purchases of materials and services.

1.8.2.5. A plan for collecting, recording, storing, retrieving and reviewing data to assure that quality has been attained, including procedures for maintaining adequate records of inspections, identification of deviations and completion of corrective actions.

1.8.2.6. Specific methods of detecting deviations from designs, plans, regulations, specifications, stipulations and permits, as the basis for initiating corrective action to preclude or rectify the hazards, harm or damage referenced in Sections 1.8.2.1. and 1.8.2.2. of these Stipulations.

1.8.2.7. Inspection, test and acceptance of components, sub-systems and sub-assemblies.

1.8.2.8. A plan for conducting surveys and field inspections of all facilities, processes and procedures of the COMPANY, its contractors, subcontractors, vendors and suppliers critical to the achievement of quality.

1.8.3. The COMPANY shall submit reports to the FEDERAL INSPECTOR to demonstrate that it is complying with the quality assurance and control program as approved. Such reports shall be submitted quarterly unless otherwise requested by the FEDERAL INSPECTOR.

1.9. CONDUCT OF OPERATIONS

1.9.1. The COMPANY shall perform PIPELINE SYSTEM operations in a safe and workmanlike manner so as to ensure protection of the environment and the safety and integrity of the PIPELINE and shall at all times employ qualified personnel and maintain equipment sufficient for that purpose. The COMPANY shall immediately notify the FEDERAL INSPECTOR of any condition, problem, malfunction, or other occurrence which in any way threatens the safety or integrity of the PIPELINE, or serious or irreparable harm to the environment. In addition, the COMPANY shall take all reasonable precautions to protect the TRANS-ALASKA PIPELINE SYSTEM from damage caused by the COMPANY during construction, operation, maintenance and termination of the PIPELINE SYSTEM. The COMPANY shall notify the FEDERAL INSPECTOR and Alyeska Pipeline Service Company, or its successor, of any such condition, problem, malfunction or other occurrence which in any way threatens the integrity of the TRANS-ALASKA PIPELINE SYSTEM.

1.10. SURVEILLANCE AND MAINTENANCE

1.10.1. During the construction, operation, maintenance and termination phases of the PIPELINE SYSTEM, the COMPANY shall conduct a surveillance and maintenance program applicable to the subarctic and arctic environment. At minimum, this program shall, with respect to the COMPANY'S activities, be designed to: (1) provide for public health and safety; (2) control or prevent damage to natural resources; (3) control or prevent erosion; (4) maintain PIPELINE integrity; and (5) control or prevent damage to public and private property.

1.10.2. The COMPANY shall maintain complete and up-to-date records on construction, operation, maintenance, and termination activities performed in connection with the PIPELINE SYSTEM. Such records shall include surveillance data, leak and break records, necessary operational data, modification records, and such other data as may be required by 49 CFR, Parts 191 and 192 and other applicable Federal laws and regulations.

1.10.3. The COMPANY shall provide a communications capability that ensures the transmission of information required for the safe construction, operation, maintenance, and termination of the PIPELINE SYSTEM.

1.11. HEALTH AND SAFETY

1.11.1 The COMPANY shall take all reasonable measures necessary to protect the health and safety of all persons directly affected by activities performed by the COMPANY in the general vicinity of the right-of-way or permit area in connection with construction, operation, maintenance or termination of the PIPELINE SYSTEM, and shall immediately abate any health or safety hazards. The COMPANY shall notify the FEDERAL INSPECTOR of accidents which occur in connection with such activities in frequency and detail identical to OSHA reporting requirements.

1.12. PUBLIC AND PRIVATE IMPROVEMENTS

1.12.1. The COMPANY shall provide reasonable protection to existing public or private improvements on FEDERAL LANDS which may be adversely affected by its activities during construction, operation, maintenance, and termination of the PIPELINE SYSTEM. If it is determined that the COMPANY has caused damage to such public and private improvements, and if the owner so requires, then the COMPANY shall promptly repair the property to a condition which is satisfactory to the owner but not to exceed its condition prior to damage.

1.13. SURVEY MONUMENTS

1.13.1. The COMPANY shall mark and protect all geodetic survey monuments encountered during construction, operation, maintenance, and termination of the PIPELINE SYSTEM. These monuments are not to be disturbed; however, if such a disturbance occurs, the FEDERAL INSPECTOR shall be immediately notified thereof in writing.

1.13.2. If any public land survey monuments, corners, or accessories (excluding geodetic survey monuments) of the United States are destroyed or damaged during the construction, operation, maintenance, or termination of the PIPELINE SYSTEM, the COMPANY shall employ a qualified land surveyor to reestablish or restore same in accordance with the "Manual of Instructions for the Survey of Public Lands" of the Bureau of Land Management and shall record such survey in the appropriate records. Additional requirements for the protection of monuments, corners, and bearing trees on FEDERAL LANDS may be prescribed by the FEDERAL INSPECTOR.

1.14. FIRE PREVENTION AND SUPPRESSION

1.14.1. The COMPANY shall promptly notify the FEDERAL INSPECTOR of any fires on, or which may threaten any portion of, the PIPELINE SYSTEM and shall take all measures necessary or appropriate for the prevention and suppression of fires in accordance with applicable law. The COMPANY shall comply with the instructions and directions of the FEDERAL INSPECTOR concerning the use, prevention and suppression of fires on FEDERAL LANDS. Use of open fires in connection with construction, operation, maintenance and termination of the PIPELINE SYSTEM is prohibited on FEDERAL LANDS unless authorized in writing by the FEDERAL INSPECTOR.

1.15. ELECTRONICALLY OPERATED DEVICES

1.15.1. The COMPANY shall, as necessary, screen, filter, or otherwise suppress any electronically operated devices installed as part of the PIPELINE SYSTEM which are capable of producing electromagnetic interference radiations so that such devices will not adversely affect the functioning of existing communications systems or navigational aids. In the event that structures such as towers or buildings are to be erected as parts of the PIPELINE SYSTEM, their positioning shall be such that they will not obstruct radiation patterns of existing line-of-sight communications systems, navigational aids, or similar systems.

1.16. TERMINATION OF AUTHORIZATION

1.16.1 Upon revocation or termination of the authorization of which these Stipulations are a part, the COMPANY shall remove all improvements and equipment from the FEDERAL LANDS, unless otherwise approved in writing by the FEDERAL INSPECTOR, and provided that restoration has been completed to the satisfaction of the FEDERAL INSPECTOR. Procedures to abandon a buried PIPELINE shall be in accordance with the requirements specified in 49 CFR, Part 192, Section 727.

1.17. STOP ORDERS

1.17.1. Designated field representatives of the FEDERAL INSPECTOR may issue a stop order at the site of the activity to any designated representative of the COMPANY, and the COMPANY shall cease the activity immediately. Except in emergencies, all stop orders shall be in writing. The FEDERAL INSPECTOR shall maintain a record of all stop orders, the officer who issued the order, the time and date of the order, and the reason for issuance. Stop orders shall automatically expire at the expiration of 24 hours from time of issuance unless extended by written order of the FEDERAL INSPECTOR. It shall be the policy of the FEDERAL INSPECTOR to issue stop orders only when: there is a violation of these Stipulations, permit conditions or a NOTICE TO PROCEED; or mitigating or corrective measures cannot be identified or agreed on, after consultation with the responsible field personnel of the COMPANY, and immediately implemented.

1.18. REGULATION OF ACCESS

1.18.1. The COMPANY shall provide, as necessary, and maintain ROADS and airstrips, the number, location and standards of which shall be approved by the FEDERAL INSPECTOR, to provide for continuing maintenance and surveillance of the PIPELINE SYSTEM.

1.18.2. During construction or termination activities, the COMPANY may regulate or prohibit public access to or upon any ROAD being used for such activity. At all other times, the COMPANY shall permit free and unrestricted public access to and upon ROADS; except that with the written consent of the FEDERAL INSPECTOR, the COMPANY may regulate or prohibit public access and vehicular traffic on ROADS as required to facilitate operations or to protect the public, wildlife and livestock from hazards associated with operation and maintenance of the PIPELINE. The COMPANY shall provide appropriate warnings, flagmen, barricades, and other safety measures when the COMPANY is using ROADS or regulating public access to or upon ROADS.

1.18.3. During construction of the PIPELINE, the COMPANY shall provide alternative routes for existing roads and trails at locations and to standards as determined by the FEDERAL INSPECTOR whether or not these roads or trails are recorded.

1.18.4. The COMPANY shall make provisions for suitable permanent crossings for the public at locations and to standards approved in writing by the FEDERAL INSPECTOR where the right-of-way crosses existing roads, foot-trails, winter trails, or other rights-of-way.

1.19. USE OF EXISTING FACILITIES

1.19.1. The COMPANY shall use existing facilities to the maximum extent practicable and economically justifiable in all construction, operation, maintenance, and termination activities associated with the PIPELINE SYSTEM.

2. ENVIRONMENTAL

2.1. ENVIRONMENTAL BRIEFINGS

2.1.1. Prior to, and during, construction, operation, maintenance, and termination of the PIPELINE SYSTEM, the COMPANY shall develop and provide environmental and other pertinent briefings for supervisory and field personnel directly related to the project and for Federal field representatives. The environmental briefing program must be submitted for review and approved by the FEDERAL INSPECTOR prior to implementation.

2.2. POLLUTION CONTROL

2.2.1. GENERAL

2.2.1.1. The COMPANY shall construct, operate, maintain, and terminate the PIPELINE SYSTEM in a manner that will avoid or minimize degradation of

air, land and water quality. The COMPANY shall comply with applicable air and water quality standards and Federal laws, regulations, and permit requirements relating to pollution control or prevention.

2.2.2. WATER AND LAND POLLUTION

2.2.2.1. The COMPANY shall comply with applicable State "Water Quality Standards" as approved by the Environmental Protection Agency and with requirements of the Environmental Protection Agency's National Pollutant Discharge Elimination System discharge permit program.

2.2.2.2. Mobile ground equipment shall not be operated in lakes, WETLANDS, streams or rivers unless such operation is approved in writing by the FEDERAL INSPECTOR.

2.2.2.3. The temperature of natural surface or ground waters shall not be changed significantly by the PIPELINE or by any construction-related activities unless approved in writing by the FEDERAL INSPECTOR.

2.2.2.4. The COMPANY shall comply with the standards for thermal pollution in the State of Alaska's "Water Quality Standards," as approved by the Environmental Protection Agency.

2.2.3. PESTICIDES, HERBICIDES AND OTHER CHEMICALS

2.2.3.1. The COMPANY shall use only non-persisent and immobile types of pesticides, herbicides and other chemicals. Only those pesticides and herbicides registered by the Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide and Rodenticide Act shall be applied. Applications of pesticides and herbicides shall be in accordance with applicable regulations of the Alaska Department of Environmental Conservation and label directions approved by the U.S. Environmental Protection Agency. Each chemical to be used and its application constraints shall be approved in writing by the FEDERAL INSPECTOR prior to use.

2.2.4. SANITATION AND WASTE DISPOSAL

2.2.4.1. "WASTE" means all discarded matter other than construction spoil. It includes, but is not limited to, human waste, trash, garbage, refuse, OIL drums, petroleum products, ashes and equipment.

2.2.4.2. All WASTE generated in construction, operation, maintenance and termination of the PIPELINE SYSTEM shall be removed or otherwise disposed of in a manner acceptable to the FEDERAL INSPECTOR. All applicable Federal and State WASTE disposal requirements shall be met by the COMPANY.

2.2.5. ICE FOG

2.2.5.1. The COMPANY shall utilize and operate all facilities and devices used in connection with the PIPELINE SYSTEM so as to avoid or minimize ice fog. Facilities and devices which cannot be prevented from producing ice fog shall be located so as not to interfere with airfields, communities or roads.

2.3. BUFFER STRIPS

2.3.1. No construction activity in connection with the PIPELINE SYSTEM shall be conducted within one-half (1/2) mile of any officially designated Federal, State or municipal park, wildlife refuge, research natural area, recreation area, recreation site, or any registered National Historic Site or National Landmark (this includes National interest lands withdrawn under Section d-2 of the Alaska Native Claims Settlement Act) unless such activity is approved in writing by the FEDERAL INSPECTOR. However, implementation of this Stipulation shall in no way compel a change in the basic nature and general route of the transportation system described in the President's Decision.

2.3.2. Where the PIPELINE right-of-way crosses State highways, a screen of vegetation native to the adjacent areas shall be established over disturbed areas unless otherwise approved in writing by the FEDERAL INSPECTOR.

2.3.3. The PIPELINE SYSTEM shall be located so as to provide five hundred (500) foot minimum buffer strips of undisturbed land between the PIPELINE SYSTEM and streams, lakes, and WETLANDS unless otherwise approved in writing by the FEDERAL INSPECTOR. It is recognized that there will be extensive construction in WETLANDS which shall be addressed in the plan required in Stipulation 1.6.

2.4. EROSION AND SEDIMENTATION CONTROL

2.4.1. GENERAL

2.4.1.1. The COMPANY shall perform all PIPELINE SYSTEM construction, operation, maintenance and termination activities so as to minimize disturbance to all surface areas.

2.4.1.2. The design of the PIPELINE SYSTEM shall provide for the control of erosion and reduction of sediment production, transport and deposit.

2.4.1.3. Erosion control measures, including structures if necessary, shall be implemented to the satisfaction of the FEDERAL INSPECTOR to: avoid induced and accelerated erosion; reduce sediment production, transport and deposit; and lessen the possibility of forming new drainage channels resulting from PIPELINE SYSTEM activities. The structures and measures shall be designed and operations conducted in such a way as to minimize disturbance to the thermal regime. Erosion control structures shall be designed to accommodate the occurrence of a 50-year design flood.

2.4.1.4. Surface materials suitable for use in restoration that are taken from disturbed areas shall be stockpiled and utilized during restoration unless otherwise approved in writing by the FEDERAL INSPECTOR. Erosion and sediment control practices to be utilized shall be determined by the needs of specific sites and, as appropriate, shall include but not be limited to REVEGETATION, mulching, and placement of mat binders, soil binders, rock or gravel blankets or structures.

2.4.2. CROSSING OF STREAMS, RIVERS OR FLOODPLAINS

2.4.2.1. The COMPANY shall minimize erosion and sedimentation at stream, river and WETLANDS crossings and those parts of the PIPELINE SYSTEM within floodplains as provided in Stipulation 3.4.

2.4.2.2. Temporary access over streambanks prior to and following trenching shall be made through use of fill ramps rather than by cutting through streambanks, unless otherwise approved in writing by the FEDERAL INSPECTOR. The COMPANY shall remove such ramps upon termination of seasonal or final use. Ramp materials shall be disposed of in a manner approved in writing by the FEDERAL INSPECTOR.

2.4.2.3. Excavated materials shall not be stockpiled in rivers, streams, floodplains, or on ice unless approved in writing by the FEDERAL INSPECTOR. In WETLANDS, stockpiling shall be in accordance with the plan required by Stipulation 1.6.

2.4.3. EXCAVATED MATERIAL

2.4.3.1. Excavated material in excess of that required to backfill around any structure, including the pipe, shall be disposed of in a manner approved in writing by the FEDERAL INSPECTOR.

2.5. FISH AND WILDLIFE PROTECTION

2.5.1. The COMPANY shall design, construct, operate, maintain and terminate the PIPELINE SYSTEM so as to assure free passage and movement of fish except for such temporary blockages as may be approved. The proposed designs and construction plans shall include the time and place that temporary blockages may occur because of instream activities.

2.5.2. Pump intakes shall be screened to prevent harm to fish in accordance with screening criteria set by Federal or State fish and wildlife agencies. If such criteria are not available, screening specifications shall be approved by the FEDERAL INSPECTOR.

2.5.3. When abandoned, water diversion structures shall be removed or plugged and stabilized unless otherwise approved in writing by the FEDERAL INSPECTOR.

2.5.4. If material sites are approved adjacent to or in lakes, rivers, streams, WETLANDS, or floodplains the FEDERAL INSPECTOR may require the COMPANY to contruct levees, berms or other suitable means to protect fish and fish passage and to prevent or minimize siltation.

2.5.5. FISH SPAWNING BEDS, FISH REARING AREAS, AND OVERWINTERING AREAS

2.5.5.1. "FISH SPAWNING BEDS" means those areas where anadromous and resident fish deposit their eggs.

2.5.5.2. "FISH REARING AREAS" means those areas inhabited by fish during all life stages including hatching and maturity.

2.5.5.3. "OVERWINTERING AREAS" means those areas inhabited by fish between freezeup and breakup.

2.5.5.4. The COMPANY shall avoid disturbances to those FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS as designated by the FEDERAL INSPECTOR; however, where disturbances cannot be avoided, proposed modifications and appropriate mitigation measures shall be designed by the COMPANY and approved in writing by the FEDERAL INSPECTOR.

2.5.5.5. The COMPANY shall protect FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS from sediment where soil material is expected to be suspended in water as a result of construction activities. Settling basins or other sediment control structures shall be constructed to intercept silt before it reaches rivers, streams, lakes or WETLANDS unless otherwise approved in writing by the FEDERAL INSPECTOR.

2.5.5.6. The COMPANY shall comply with any site-specific terms and conditions imposed by the FEDERAL INSPECTOR to protect FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS. The COMPANY shall repair damage to such areas caused by construction, operation, maintenance or termination of the PIPELINE SYSTEM to the satisfaction of the FEDERAL INSPECTOR as stated in writing.

2.5.5.7. The COMPANY shall not take water from FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS or waters that directly replenish those areas during critical periods that will be defined by the FEDERAL INSPECTOR, unless otherwise approved by the FEDERAL INSPECTOR in accordance with Stipulation 2.5.6.

2.5.6. ZONES OF RESTRICTED ACTIVITIES

2.5.6.1. The COMPANY'S activities in connection with construction, operation, maintenance and termination of the PIPELINE SYSTEM in key fish and wildlife areas and in specific areas where threatened or endangered species of animals are found may be restricted by the FEDERAL INSPECTOR during periods of fish and wildlife breeding, nesting, spawning, lambing and calving activity, overwintering and during major migrations of fish and wildlife. The FEDERAL INSPECTOR shall provide the COMPANY written notice of such restrictive action. At least annually, and as far in advance of such restrictions as is possible, the FEDERAL INSPECTOR shall furnish the COMPANY an updated list of areas where such actions may be required, together with anticipated dates of restriction.

2.5.7. BIG GAME MOVEMENTS

2.5.7.1. The COMPANY shall design, construct and maintain both the buried and above ground sections of the PIPELINE so as to assure free passage and movement of big game animals.

2.6. PURCHASE OF MATERIALS

2.6.1. If the COMPANY requires mineral materials from public lands of the United States, it shall make application to purchase such materials in accordance with 43 CFR, Part 3610 and shall submit a mining plan

in accordance wtih 43 CFR, Part 23. No materials may be removed by the COMPANY without the written approval of the FEDERAL INSPECTOR. Application to purchase merchantable timber shall be made under applicable regulations.

2.7. CLEARING

2.7.1. BOUNDARIES

2.7.1.1. The COMPANY shall identify clearing boundaries on the ground which shall be approved by the FEDERAL INSPECTOR prior to beginning clearing operations. All timber and other vegetative material outside clearing boundaries and all blazed, painted or posted trees which are on or mark clearing boundaries are reserved from cutting and removal with the exception of danger trees or snags designated by the COMPANY and approved by the FEDERAL INSPECTOR.

2.7.2. CLEARING PROCEDURES

2.7.2.1. All trees, snags, and other wood material cut in connection with clearing operations shall be cut so that the resulting stumps shall not be higher than six (6) inches measured from the ground on the uphill side.

2.7.2.2. All trees, snags and other wood material cut in connection with clearing operations shall be felled into the area within the clearing boundaries and away from watercourses.

2.7.2.3. Hand clearing shall be used in areas where the FEDERAL INSPECTOR determines that use of heavy equipment would be detrimental to existing conditions.

2.7.2.4. All debris resulting from clearing operations and construction that may block streamflow, delay fish passage, contribute to flood damage, or result in streambed scour or erosion shall be removed within 48 hours unless otherwise approved or directed by the FEDERAL INSPECTOR.

2.7.3. DISPOSAL OF CLEARING DEBRIS

2.7.3.1. All slash shall be disposed of in construction pads or ROADS unless otherwise approved in writing by the FEDERAL INSPECTOR. Slash shall be disposed of prior to the end of the first winter after cutting.

2.7.3.2. Vegetation, nonmerchantable timber, overburden and other materials removed during clearing operations shall be disposed of by the COMPANY in a manner approved in writing by the FEDERAL INSPECTOR.

2.8. DISTURBANCE OR USE OF NATURAL WATERS

2.8.1. All activities of the COMPANY in connection with the PIPELINE SYSTEM that may create new lakes, drain existing lakes, significantly divert natural drainages and surface runoff, permanently alter stream or ground water

hydraulics, or disturb significant areas of streambeds are prohibited unless such activities along with necessary mitigation measures are approved in writing by the FEDERAL INSPECTOR.

2.8.2. The COMPANY shall not develop or utilize any wells or surface water sources on FEDERAL LANDS for the construction, operation, maintenance and termination of the PIPELINE SYSTEM without the prior written approval of the FEDERAL INSPECTOR.

2.9. OFF RIGHT-OF-WAY TRAFFIC

2.9.1. The COMPANY shall not operate mobile ground equipment on FEDERAL LANDS off the right-of-way, any roads, or authorized areas unless approved in writing by the FEDERAL INSPECTOR or when necessary to prevent immediate harm to any person.

2.10. VISUAL RESOURCES

2.10.1. The COMPANY shall consider visual resources in planning, construction, operation and termination of the PIPELINE SYSTEM. The COMPANY shall prepare a visual resource plan for the PIPELINE SYSTEM in accordance with Stipulation 1.6.

2.11. USE OF EXPLOSIVES

2.11.1. The COMPANY shall submit a plan for storage and use of explosives, including but not limited to blasting techniques, to the FEDERAL INSPECTOR for approval in accordance with Stipulation 1.6.

2.11.2. No blasting shall be done under water or within one quarter (1/4) mile of streams or lakes with identified fisheries or wildlife resources without written approval of the FEDERAL INSPECTOR.

2.11.3. Timing and location of blasting shall be approved by the FEDERAL INSPECTOR.

2.12. RESTORATION

2.12.1. Upon completion of use, the COMPANY shall restore all areas of FEDERAL LANDS disturbed by it, in accordance with schedules approved by the FEDERAL INSPECTOR and approved plans required under Stipulation 1.6. Restoration performed by the COMPANY shall be approved in writing by the FEDERAL INSPECTOR.

2.12.2. Restoration includes, where appropriate, erosion and sediment control, REVEGETATION, reestablishment of native species, and stabilization. Unless otherwise directed by the FEDERAL INSPECTOR, all disturbed areas of FEDERAL LANDS shall be put-to-bed. "Put-to-bed" means that the areas shall be left in such stabilized condition that erosion will be minimized through the use of adequately designed and constructed waterbars, REVEGETATION and chemical surface control; that culverts and bridges shall be removed, unless otherwise approved in writing by the FEDERAL INSPECTOR, and slopes restored by the COMPANY in a manner satisfactory to the FEDERAL INSPECTOR and that use of such areas by the COMPANY shall cease.

2.12.3. REVEGETATION of disturbed areas of FEDERAL LANDS shall be accomplished as soon as practicable in accordance with plans required under Stipulation 1.6. and approved by the FEDERAL INSPECTOR. The results of REVEGETATION must be satisfactory to the FEDERAL INSPECTOR as stated in writing. "REVEGETATION" means the establishment of plant cover on disturbed lands through techniques including, but not limited to, seedbed preparation, seeding, planting, fertilizing, mulching, and watering.

2.12.4. The COMPANY shall dispose of all materials from ROADS, haul ramps, berms, dikes, and other earthen structures it has placed on FEDERAL LANDS in accordance with approved restoration plans unless otherwise directed by the FEDERAL INSPECTOR.

2.12.5. Pending restoration of a disturbed area of FEDERAL LANDS, the COMPANY shall maintain the area in a stabilized condition satisfactory to the FEDERAL INSPECTOR.

2.12.6. Upon completion of restoration of an area of FEDERAL LANDS, the COMPANY shall remove all equipment and supplies from that area in accordance with approved restoration plans unless otherwise directed by the FEDERAL INSPECTOR.

2.12.7. The COMPANY shall maintain all restored areas of FEDERAL LANDS in accordance with approved plans required under Stipulation 1.6.

2.13. REPORTING, PREVENTION, CONTROL, CLEANUP AND DISPOSAL OF OIL AND HAZARDOUS SUBSTANCES DISCHARGES

2.13.1. The COMPANY shall give notice in accordance with applicable law of any spill, leakage, or discharge of OIL or other HAZARDOUS SUBSTANCES in connection with the construction, operation, maintenance or termination of the PIPELINE SYSTEM to (1) the FEDERAL INSPECTOR and (2) such other Federal and State officials as are required by law to be given such notice. Any oral notice shall be confirmed in writing as soon as possible.

2.13.2. The COMPANY shall submit an OIL and HAZARDOUS SUBSTANCE prevention, control, cleanup and disposal plan to the FEDERAL INSPECTOR in accordance with Stipulation 1.6. The plan shall conform to this Stipulation and shall outline all areas where OIL and/or HAZARDOUS SUBSTANCES are stored, utilized, transported or distributed. The plan shall include fuel distribution systems, storage and containment, containerized products, leak detection systems, handling procedures, training programs, provisions for collection, storage and ultimate disposal of waste OIL, cleanup methods, disposal sites and other criteria as may be required under Stipulation 1.6. The plan shall be approved in writing by the FEDERAL INSPECTOR and the COMPANY shall demonstrate its capability and readiness to execute the plan.

2.14. PIPELINE CONTINGENCY PLAN

2.14.1. The COMPANY shall submit a PIPELINE contingency plan to the FEDERAL INSPECTOR in accordance with Stipulation 1.6. The plan shall

conform to this Stipulation and shall outline the steps to be taken in the event of a break, leak or explosion in the PIPELINE. The plan shall be approved in writing by the FEDERAL INSPECTOR prior to PIPELINE startup and the COMPANY shall demonstrate its capability and readiness to execute the plan.

2.14.2. The COMPANY shall, as appropriate, update the plan and methods of implementation thereof, which shall be submitted annually to the FEDERAL INSPECTOR for his written approval.

2.15. CULTURAL RESOURCES

2.15.1. The COMPANY shall undertake the affirmative responsibility to identify, protect and preserve cultural, historic, prehistoric and archeological resources that may be impacted by the PIPELINE SYSTEM consistent with the National Historic Preservation Act of 1966, as amended, and the implementing procedures of the Advisory Council on Historic Preservation, 36 CFR Part 800. This responsibility will be conducted in a manner consistent with the terms of a Memorandum of Agreement, under Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. § 470f, 80 Stat. 915, between the Advisory Council on Historic Preservation, the State Historic Preservation Officer, and appropriate Federal and State officials. The agreement will include a plan for complying with these and other statutes and regulations applicable to historic and prehistoric resources protection. Additional protection responsibilities established by the Archeological and Historic Preservation Act shall be implemented in the manner provided by the Statement of Program Approach for this Act as published at 44 Fed. Reg. 18117 et seq., March 26, 1979.

2.16. HUNTING, FISHING AND TRAPPING

2.16.1. The COMPANY shall inform its employees, agents, contractors, subcontractors and their employees of applicable laws and regulations relating to hunting, fishing, and trapping.

2.17. SMALL CRAFT PASSAGE

2.17.1. The creation of any permanent obstruction to the passage of small craft in streams is prohibited.

3. TECHNICAL

3.1. PIPELINE SYSTEM STANDARDS

3.1.1. GENERAL STANDARDS

3.1.1.1. All design, material and construction, operation, maintenance and termination practices employed in the PIPELINE SYSTEM shall be in accordance with safe and proven engineering practice and, with regard to the PIPELINE, shall meet or exceed the Department of Transportation Regulations, 49 CFR, Parts 191, "Reports of Leaks," and 192, "Transportation of Natural and Other Gas by Pipelines: Minimum Federal Safety Standards."

3.1.2. SPECIAL STANDARDS

3.1.2.1. The PIPELINE design shall provide for sectionalizing block valves, protective devices to prevent overpressuring, and other safety devices installed at locations required by Federal safety standards, or as may be designated by the FEDERAL INSPECTOR during the PRELIMINARY DESIGN reviews to accommodate potentially hazardous areas, other facilities and environmental values.

3.1.2.2. The COMPANY shall inspect 100 percent if practicable, but not less than 90 percent of the main line girth welds using radiographic or other nondestructive inspection techniques to assure compliance with defect acceptablility standards approved by the FEDERAL INSPECTOR. Where radiography is used, x-ray radiography will be used, unless otherwise approved by the FEDERAL INSPECTOR.

3.1.2.3. The PIPELINE design in environmentally sensitive areas shall provide for minimum maintenance needs to reduce re-entry requirements.

3.1.2.4. All practicable means shall be utilized to minimize injury to the ground organic layer.

3.1.2.5. Welder qualification tests shall be by destructive means, except that operators of automatic welding equipment shall be tested by radiography in accordance wth ASME Boiler and Pressure Vessel Code, Section 9, Subsection Q-21(b).

3.1.2.6. All construction, operation, maintenance and termination activities in connection with the PIPELINE SYSTEM shall be conducted so as to avoid or minimize thermal changes. All working platforms, pads, fills and other surface modifications shall be planned and executed in such a way that any resulting alteration of permafrost will not jeopardize PIPELINE integrity and the surrounding environment.

3.1.2.7. A monitoring program shall be developed by the COMPANY as part of the surveillance and maintenance plan required by Stipulation 1.6. which shall identify significant PIPELINE movement resulting from frost heave, settlement or seismic forces. This program, including baseline data, shall be finalized and operational prior to transmission of GAS through the PIPELINE.

3.1.3. STANDARDS FOR ROADS

3.1.3.1. The COMPANY shall submit a layout of each proposed ROAD for approval by the FEDERAL INSPECTOR in accordance with Stipulation 1.7.

3.1.3.2. ROADS shall be constructed to standards suitable for safe operation of equipment at the travel speeds proposed by the COMPANY in accordance with Stipulation 3.1.3.3.

3.1.3.3. Design, materials and construction practices employed for ROADS shall be in accordance with safe and proven engineering practice. ROADS intended for permanent use shall be constructed in

accordance with the principles of construction for secondary roads for the subarctic and arctic environments. Existing roads approved for use by the COMPANY that do not meet these standards need not be upgraded, subject to approval of the FEDERAL INSPECTOR, provided that the basic access requirements imposed by Stipulation 1.18. are satisfied.

3.1.3.4. The maximum allowable grade shall be 12 percent unless otherwise approved in writing by the FEDERAL INSPECTOR.

3.2. EARTHQUAKES AND FAULT DISPLACEMENTS

3.2.1. EARTHQUAKES

3.2.1.1. The PIPELINE shall be designed by appropriate application of modern, state-of-the-art seismic design procedures to protect the PIPELINE from the effects (including seismic shaking, ground deformation and earthquake-induced mass movements) of earthquakes distributed along the route as follows:

ZONE	Richter Magnitude
Canadian/Alaska Border to Big Delta	6.5
Big Delta to 67 deg. N.	7.5
67 deg. N. to Prudhoe Bay	5.5

3.2.1.2. The COMPANY shall provide a seismic monitoring system, to be approved by the FEDERAL INSPECTOR, and shall ensure there are adequate procedures for the safe shutdown of the PIPELINE under severe seismic conditions. Such procedures, to be considered adequate, shall include but not necessarily be limited to: (1) communication capability with all key operating control points on the PIPELINE SYSTEM, the GAS processing plant on the North Slope, and other parties with seismic monitoring capabilities as appropriate, (2) a control center and alternate for the PIPELINE SYSTEM, (3) operating procedures establishing the actions to be taken in the event of severe seismic conditions, and (4) seismic sensors as necessary to supplement existing monitoring capabilities.

3.2.2. FAULT DISPLACEMENTS

3.2.2.1. Prior to applying for a NOTICE TO PROCEED for any CONSTRUCTION SEGMENT, the COMPANY shall satisfy the FEDERAL INSPECTOR that all recognizable or reasonably inferred faults or fault zones along the alignment within that segment have been identified and delineated and any risk of major PIPELINE damage resulting from fault movement and ground deformation has been adequately assessed and provided for in the design of the PIPELINE for that segment. Evaluation of said risk shall be based on geologic, geomorphic, geodetic, seismic, and other appropriate scientific evidence of past or present fault behavior and shall be compatible with the design earthquakes tabulated

in Stipulation 3.2.1.1. and with observed relationships between earthquake magnitude and extent and amount of deformation and fault slip within the fault zone.

3.2.2.2. Minimum design criteria for a segment of the PIPELINE traversing a fault zone that is interpreted by the FEDERAL INSPECTOR as active shall be: (1) that the PIPELINE resist failure resulting in line rupture from maximum anticipated horizontal and/or vertical displacement in the foundation material anywhere within the fault zone during the life of the PIPELINE; and (2) that no storage tank or compressor station be located within the fault zone unless otherwise approved by the FEDERAL INSPECTOR.

3.3. SLOPE STABILITY

3.3.1. Areas subject to mudflows, landslides, avalanches, rock falls and other types of mass movements shall be avoided where practicable in locating the PIPELINE. Where such avoidance is not practicable, the PIPELINE design, based upon detailed field investigations and analyses, shall provide measures to prevent the occurrence of, or protect the PIPELINE against, the effects of mass movement.

3.4. STREAM AND FLOODPLAIN CROSSINGS AND EROSION

3.4.1. GENERAL

3.4.1.1. The PIPELINE SYSTEM shall be designed so as to both minimize the number of stream and WETLAND crossings and to include, but not be limited to, consideration of aufeis development, erosion and sedimentation, restriction of natural meander, or alteration of the physical or chemical nature of the water body.

3.4.1.2. For each region through which the PIPELINE passes, the PIPELINE shall be designed to withstand or accommodate the effects (including runoff, stream and floodplain erosion, meander cutoffs, lateral migration, ice jams, and icings) of those meterologic, hydrologic (incuding surface and subsurface) and hydraulic conditions considered reasonably probable for the region. For stream crossings and portions of the PIPELINE within the floodplain, the following standards shall apply to such PIPELINE design:

3.4.1.2.1. The design flood shall be based on the concept of the "Standard Project Flood" as defined in Corps of Engineers Bulletin 52-8, Part 1, unless otherwise approved by the FEDERAL INSPECTOR.

3.4.1.2.2. The depth of channel scour shall be established by appropriate field investigations and theoretical calculations using those combinations of water velocity and depth that yield the maximum value. At the point of maximum scour, the cover over the top of the pipe shall be at least twenty (20) percent of the computed scour, but not less than four (4) feet.

3.4.1.2.3. For overhead crossings, comparable analysis shall be made to ensure that support structures are adequately protected from the effects of scour, channel migration, undercutting, ice forces and degradation of permafrost and other external and internal loads.

3.4.1.2.4. In floodplains, appropriate construction procedures as approved by the FEDERAL INSPECTOR shall be used wherever there is potential channelization along the pipe.

3.4.1.2.5. Methods of constructing stream crossings, including excavation and backfill of pipe trench near and through streambanks, shall be approved in writing by the FEDERAL INSPECTOR prior to initiation of field activities.

3.4.1.3. Low water stream crossings (fords across streams or rivers where any mobile ground equipment is moved on the streambed) shall be designed, constructed, maintained, and restored to standards approved in writing by the FEDERAL INSPECTOR.

3.4.2. EROSION

3.4.2.1. Where necessary because of outfall erosion, stilling basins shall be constructed at the outflow end of culverts. To prevent erosion, the pool sides shall be stabilized by appropriate methods, e.g., by the use of riprap.

3.4.2.2. Slopes of cuts through stream banks shall be designed and constructed to minimize erosion and prevent slides.

3.4.2.3. Erosion control procedures shall accommodate and be based on the runoff produced by the maximum rainfall rate and snow melt combination reasonably characteristic of the region. The procedures shall also accommodate effects that result from thawing produced by flowing or ponded water on permafrost terrain and the effects of ice.

3.4.3. CULVERTS AND BRIDGES

3.4.3.1. Culverts and bridges necessary for maintenance of the PIPELINE shall be designed at a minimum to accommodate a fifty (50) year flood in accordance with criteria established by the American Association of State Highway Officials and the Federal Highway Administration and endorsed by the State of Alaska Department of Transportation.

3.4.3.2. Culverts necessary for construction or operation of the PIPELINE SYSTEM shall be installed a minimum of six (6) inches below the thalweg in fish streams which shall be identified by the FEDERAL INSPECTOR.

3.5. PIPELINE CORROSION

3.5.1. The COMPANY shall provide detailed information on planning for a corrosion resistant design and methods for early detection of corrosion. This shall include consideration of: (1) pipeline material and welding techniques to be used and information on their particular suitablility for the environment involved; (2) details on the external pipe protection to be provided (coating, wrapping, etc.), including information on variations of the coating process to cope with variations in environmental factors along the PIPELINE route; (3) plans for cathodic protection including details of impressed current sources and controls to ensure continuous maintenance of adequate protection over the entire

surface of the pipe; (4) details of plans for monitoring cathodic protection current including spacing of current monitors; (5) provision for periodic intensive surveys of trouble spots, regular preventive maintenance surveys, and special provisions for abnormal potential patterns especially those resulting from other pipelines or cables; and (6) information on any precautions that may be required to prevent internal corrosion of the PIPELINE.

3.6. CONSTRUCTION MODE REQUIREMENTS

3.6.1. The selection of the CONSTRUCTION MODE shall be governed by the results of adequate geotechnical field exploration and testing programs. Comprehensive analyses shall be made to assure that PIPELINE integrity will be maintained and that construction or operation of the PIPELINE will not cause or exacerbate major terrain disturbances. Analysis shall consider stresses and strains on the PIPELINE by internal and external loading and shall include, but not be limited to, total and differential heaving, permafrost (especially liquefaction and differential settlement after thawing), frost action, seismic loading, slope stability, active faults, swelling soils, subsidence, erosion, flooding and icings. The design for the CONSTRUCTION MODE shall be submitted to the FEDERAL INSPECTOR for approval prior to pipe installation, in accordance with Stipulation 1.7.

STIPULATIONS
NORTHERN LEG

1. GENERAL

1.1. DEFINITIONS

1.1.1. The following definitions apply to terms used in these Stipulations. They shall also apply to terms used in documents to which these Stipulations are attached unless specifically provided otherwise in such documents.

1.1.2. The "AGENCY" means the Federal agency which has issued the authorization of which this Exhibit is a part.

1.1.3. "AUTHORIZED OFFICER" means the employee of the AGENCY to whom the head of the AGENCY has delegated the authority to administer the authorization of which this Exhibit is a part, or an employee so designated by an AGENCY with enforcement functions transferred to the FEDERAL INSPECTOR by Reorganization Plan No. 1 of 1979.

1.1.4. The "COMPANY" means Northern Border Pipeline Company, its successors and assigns.

1.1.5. "CONSTRUCTION SEGMENT" means a portion of the PIPELINE SYSTEM, as agreed upon by the COMPANY and the FEDERAL INSPECTOR, that constitutes a complete physical entity or stage, in and of itself, which can be constructed, independently of any other portion or stage of the PIPELINE SYSTEM in a designated area or between two given geographical points.

1.1.6. "FEDERAL INSPECTOR" means the officer appointed by the President with the advice and consent of the Senate pursuant to Section 7(a)(5) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719e, and Reorganization Plan No. 1 of 1979.

1.1.7. "FEDERAL LANDS" means all lands owned by the United States except lands in the National Park System, lands held in trust for an Indian or Indian tribe, and lands on the Outer Continental Shelf.

1.1.8. "FINAL DESIGN" means completed design documents suitable for bid advertisement, including contract plans and specifications; proposed construction modes; operational requirements necessary to justify designs; design analysis (including calculations for each particular design feature); all functional and engineering criteria; summaries of engineering tests conducted and their results; and other considerations pertinent to design.

1.1.9. "GAS" means a gaseous mixture, principally of methane and other paraffinic hydrocarbons, suitably conditioned to an acceptable specification for transportation by the PIPELINE.

1.1.10. "HAZARDOUS SUBSTANCES" means OIL, toxic, or HAZARDOUS SUBSTANCES as defined by the Environmental Protection Agency, the Department of Transportation or as specified in writing by the FEDERAL INSPECTOR in consultation with the Environmental Protection Agency's and the Department of Transportation's AUTHORIZED OFFICERS during the review of the COMPANY'S HAZARDOUS SUBSTANCES plan.

1.1.11. "NOTICE TO PROCEED" means a written permission to initiate PIPELINE SYSTEM construction that is issued in accordance with Stipulation 1.7.

1.1.12. "OIL" means oil of any kind or any form, including but not limited to fuel oil, sludge, oil refuse, and oil mixed with WASTE other than dredged spoil.

1.1.13. "PIPELINE" means the line of pipe and RELATED FACILITIES authorized on FEDERAL LANDS by the United States Department of the Interior by Right-of-Way Grant No._____.

1.1.14. "PIPELINE SYSTEM" means all facilities on FEDERAL LANDS which are constructed or used by the COMPANY pursuant to the Alaska Natural Gas Transportation Act in connection with the construction, operation, maintenance or termination of the PIPELINE. The term includes the PIPELINE and its RELATED FACILITIES; it does not include facilities used by others in the production, gathering or conditioning of GAS. The term also includes temporary facilities and temporary use areas used by the COMPANY for the construction, operation, maintenance, or termination of the PIPELINE. It does not include facilities, such as urban administrative offices, which are only indirectly involved in the transportation of GAS.

1.1.15. A. "RELATED FACILITIES" means those structures, devices, improvements and sites on FEDERAL LANDS, other than the pipe, the substantially continuous use of which is necessary for the operation and maintenance of the PIPELINE. RELATED FACILITIES includes, if applicable: supporting structures; access roads; compressor stations, including associated buildings, structures, yards and fences; valves and other control devices and structures housing them; bridges, culverts and low-water crossings; monitoring and communication devices and structures housing them; yards and structures; retaining walls, berms, dikes, ditches, cuts and fills, including hydraulic control structures; structures and areas for storing supplies and equipment; cathodic protection devices; and other facilities of a similar nature as the AUTHORIZED OFFICER shall determine to be RELATED FACILITES.

B. "RELATED FACILITIES" does not mean those facilities used by the COMPANY only temporarily, such as construction camps and temporary roads.

1.1.16. "ROADS" means roads on FEDERAL LANDS, other than State or public highways, that are constructed or used by the COMPANY in connection with the construction, operation, maintenance or termination of the PIPELINE SYSTEM.

1.1.17. "WETLANDS" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. WETLANDS generally include swamps, marshes, bogs, and similar areas.

1.2. APPLICABILITY

1.2.1. These Stipulations set forth the general standards of environmental and construction performance, and the procedures for the submission and approval of construction plans and environmental safeguards, that are required by Section III, 1, of the Terms and Conditions set forth in the Decision and Report to Congress on the Alaska Natural Gas Transportation System which was transmitted to the Congress by the President on September 22, 1977, pursuant to the Alaska Natural Gas Transportation Act of 1976, 15 U.S.C. §§ 719, et seq.

1.2.2. During the construction, operation, maintenance and termination of the PIPELINE SYSTEM, the COMPANY shall comply with these Stipulations. Although the Stipulations provide for enforcement by the FEDERAL INSPECTOR, it is intended that the Stipulations shall also be enforced by the AUTHORIZED OFFICER, as provided in Reorganization Plan No. 1 of 1979.

1.2.3. The following conditions shall apply to the construction, operation, maintenance, and termination of the PIPELINE SYSTEM. Unless clearly inapplicable, the requirements and prohibitions imposed upon the COMPANY by these Stipulations are also imposed upon the COMPANY'S agents, employees, contractors, and subcontractors, and the employees of each of them. (1) The COMPANY shall ensure compliance with these Stipulations by its agents, employees, and contractors (including subcontractors at any level), and the employees of each of them. (2) Failure or refusal of the COMPANY'S agents, employees contractors, subcontractors, or their employees to comply with these Stipulations shall be deemed to be the failure or refusal of the COMPANY. (3) Where appropriate the COMPANY shall require its agents, employees, contractors and subcontractors to include these Stipulations in all contracts and subcontracts which are entered into by any of them, together with a provision that the other contracting party, together with its agents, employees, contractors and subcontractors, and the employees of each of them, shall likewise be bound to comply with these Stipulations. (4) In consonance with Section 9 of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, Federal agencies issuing and enforcing these Stipulations shall not impose any other environmental or technical Stipulations generally applicable to FEDERAL LANDS unless specifically mandated by Federal statute; however, this shall not preclude the imposition of terms and conditions by Federal agencies, also in consonance with Section 9 of the Alaska Natural Gas Transportation Act, to accommodate site-specific concerns.

1.2.4. Nothing in these Stipulations shall be construed as applying to activities of the COMPANY that have no relation to the PIPELINE SYSTEM.

1.2.5. In the implementation of the authorization of which these Stipulations are a part, the following principles shall apply:

(1) In the construction, operation, maintenance (including but not limited to a continuing and reasonable program of preventive maintenance) and termination of the

PIPELINE SYSTEM, the COMPANY shall employ all practicable means and measures to preserve and protect the environment, as provided in these Stipulations.

(2) The COMPANY and the FEDERAL INSPECTOR shall balance environmental amenities and values with economic practicalities and technical capabilities, so as to be consistent with applicable national policies. In so doing, they shall take into account, among other considerations, the following:

(a) The benefit or detriment to persons, property and the environment that may be anticipated to result from a proposed course of conduct;

(b) The particular environmental, technical, and economic benefits or detriments reasonably expected to flow from a proposed course of conduct;

(c) The effect on the energy needs of the United States, including the possible effects of a disruption of national or regional GAS supply, that may result from a particular course of conduct.

(3) The COMPANY shall manage, supervise and implement the construction, operation, maintenance and termination of the PIPELINE SYSTEM in accordance with safe and proven engineering practice, to the extent allowed by the state of the art and the development of technology. In the exercise of these functions, the COMPANY consents and shall submit to such review, inspection and compliance procedures relating to construction, operation, maintenance and termination of the PIPELINE SYSTEM as are provided for in these Stipulations and applicable authorizations.

These Stipulations are not intended in any way to derogate from, or be construed as being inconsistent with, applicable provisions of law.

1.2.6. Nothing in these Stipulations shall be construed to affect any right or cause of action that otherwise would be available to the COMPANY against any person. The United States and the COMPANY do not intend to create any rights under these Stipulations that may be enforced by third parties for their own benefit or for the benefit of others.

1.3. RESPONSIBILITIES

1.3.1. Subject to Section 9(d) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, the COMPANY shall comply with these Stipulations and lawful orders of the FEDERAL INSPECTOR implementing these Stipulations.

1.3.2. The authority and obligations of the FEDERAL INSPECTOR, as provided in these Stipulations, shall be exercised and met by the FEDERAL INSPECTOR during the period when the Office of the FEDERAL INSPECTOR is in existence pursuant to the provisions of Reorganization Plan No. 1 of 1979. Prior to the establishment of the Office of the FEDERAL INSPECTOR, and upon the termination of that Office, the authority and obligations of the FEDERAL INSPECTOR shall be performed by the appropriate officers of the Federal agencies normally having jurisdiction over such matters.

1.3.3. Failure of the COMPANY to comply with these Stipulations and implementing orders of the FEDERAL INSPECTOR shall constitute grounds for appropriate enforcement action by the FEDERAL INSPECTOR pursuant to the authority vested in him by law.

1.3.4. The COMPANY shall designate a representative who shall be empowered on behalf of the COMPANY to communicate with, and to receive and comply with all communications and orders of, the FEDERAL INSPECTOR. The COMPANY shall also designate field representatives who shall be authorized to communicate and cooperate with field representatives of the FEDERAL INSPECTOR. The COMPANY shall keep the FEDERAL INSPECTOR informed of any change of the COMPANY'S representatives during the construction, operation, maintenance, and termination of the PIPELINE SYSTEM.

1.3.5. The FEDERAL INSPECTOR may require the COMPANY at any time to furnish any or all data related to the construction, operation, maintenance, and termination activities undertaken in connection with the PIPELINE SYSTEM, as may be reasonably relevant to the FEDERAL INSPECTOR'S responsibilities in connection with construction, operation, maintenance, and termination activities of the PIPELINE SYSTEM; provided, however, that access to such documents is not prohibited or limited by law or regulation, and provided further that any such data furnished shall be subject to the provisions of the Freedom of Information Act, 5 U.S.C. § 552. The FEDERAL INSPECTOR shall impose such a requirement in writing, specifying the data required, the desired date and place of delivery, and the medium to be employed, taking into consideration the time reasonably required to provide the data and the costs involved.

1.3.6. Consonant with the provisions of Section 9(d) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, and prior to the issuance of a NOTICE TO PROCEED, the FEDERAL INSPECTOR may by written order require the COMPANY to make such modification of the PIPELINE SYSTEM as he deems necessary to: protect or maintain stability of foundation and other earth materials; protect or maintain integrity of the PIPELINE SYSTEM; control or prevent serious or irreparable damage to the environment (including but not limited to fish and wildlife populations or their habitats); or remove hazards to public health and safety. Any modification of facilities not yet under construction, ordered in connection with the issuance of a NOTICE TO PROCEED, shall be made without liability or expense to the United States.

1.3.7. The absence of any comment by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER on any plan, design, specification, or other document which may be filed by the COMPANY with the FEDERAL INSPECTOR or the AUTHORIZED OFFICER shall not be deemed to represent in any way whatever any assent to, approval of, or concurrence in such plan, design, specification, or other document, or of any action proposed therein. Nevertheless, on any matter necessary or related to the construction and initial operation of the PIPELINE SYSTEM which requires action by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER there is an obligation to act expeditiously in compliance with Subsections 9(a) and (b) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g. Any written approval or instruction by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER may be relied upon by the COMPANY unless and until rescinded in writing.

1.3.8. The FEDERAL INSPECTOR shall have a continuing right of access to any part of the PIPELINE SYSTEM at any time for inspection or monitoring and for any other purpose or reason that is reasonably consistent with his responsibilites. This right may be exercised by the FEDERAL INSPECTOR and his agents and representatives designated in writing; and contractors and subcontractors of the FEDERAL INSPECTOR performing work related to the PIPELINE SYSTEM. The FEDERAL INSPECTOR shall prepare procedures to implement this Stipulation, including reasonable advance notification where practicable.

1.3.9. No order or notice given to the COMPANY on behalf of the FEDERAL INSPECTOR shall be effective as to the COMPANY unless prior written notice of the delegation of authority to issue such order or notice has been given to the COMPANY.

1.3.10. Prior to beginning work on any aspect of the Alaska Natural Gas Transportation System, the COMPANY will furnish all supervisory-level employees with copies of these Stipulations and will explain the limitations imposed by these Stipulations.

1.4. COMMUNICATIONS

1.4.1. During the period of construction and initial operation of the PIPELINE SYSTEM, all formal written communications between the COMPANY and the AGENCY of the AUTHORIZED OFFICER involving construction, operation, maintenance, or termination of the PIPELINE SYSTEM shall be transmitted through the FEDERAL INSPECTOR or as he may direct. However, documents required by statute or AGENCY regulation to be filed with the AGENCY shall be filed as so required, provided that a copy (or copies) thereof is concurrently filed with the FEDERAL INSPECTOR.

1.4.2. Any written notice or communication, including any telegram, relating to any subject, addressed to the FEDERAL INSPECTOR from the COMPANY, shall be deemed to have been delivered to and received by the FEDERAL INSPECTOR when the notice or communication has been delivered either by messenger during normal business hours, or by means of registered or certified United States mail, postage prepaid, return receipt requested, to the Office of the FEDERAL INSPECTOR.

1.4.3. Any written order, notice, or other written communication, including any telegram, relating to any subject, that is addressed to the COMPANY from the FEDERAL INSPECTOR shall be deemed to have been delivered to and received by the COMPANY when the order, notice or other communication has been delivered either by messenger during normal business hours, or by means of registered or certified United States mail, postage prepaid, return receipt requested to the office of the representative designated by the COMPANY pursuant to Stipulation 1.3.4.

1.4.4. All orders or approvals of the FEDERAL INSPECTOR shall be in writing, but in emergencies may be issued orally, with subsequent confirmation in writing as soon as possible thereafter, but not later than 24 hours.

1.5. SUMMARY NETWORK ANALYSIS DIAGRAMS

1.5.1. Prior to the initiation of construction, the COMPANY shall submit a summary network analysis diagram for the project to the FEDERAL INSPECTOR for review and approval. As mutually agreed to by the COMPANY and the FEDERAL INSPECTOR, the summary network analysis diagram shall include all engineering and construction-related activities and contingencies which reasonably may be anticipated in connection with the project. The summary network analysis diagram shall include or address:

(1) data collection activities;
(2) submittal and approval activities;
(3) construction and post construction activities;
(4) schedule control techniques; and
(5) other pertinent data.

The summary network analysis diagram shall be prepared employing techniques normal to the industry in sufficient detail and scope to permit the FEDERAL INSPECTOR to determine if the management approach shown or inferred by the network analysis will facilitate the cost-effective, environmentally sound and timely construction of the project.

1.5.2. The summary network analysis diagram shall be initially prepared and updated to reflect major changes at intervals mutually agreeable to the COMPANY and the FEDERAL INSPECTOR.

1.6. PLANS AND PROGRAMS

1.6.1. The COMPANY shall submit to the FEDERAL INSPECTOR comprehensive plans and/or programs which shall include but not be limited to the following:

1. Environmental briefings
2. OIL and HAZARDOUS SUBSTANCES discharges
3. Air quality
4. Pesticides, herbicides, chemicals
5. Solid waste management
6. Liquid waste management

7. Erosion control
8. Stream crossings
9. Material extraction
10. Overburden and excess material disposal
11. Clearing
12. Visual Resources
13. Blasting
14. Restoration
15. PIPELINE contingency
16. Quality assurance/quality control
17. Surveillance and maintenance
18. Cultural resource preservation
19. Fire control
20. WETLAND construction

These plans and programs may be combined as appropriate.

1.6.2. The plans and programs specified in Stipulation 1.6.1. shall be approved in writing by the FEDERAL INSPECTOR and shall be complied with by the COMPANY. The COMPANY and the FEDERAL INSPECTOR shall agree to the scope and content of the required plans and the schedule for submission and approval of the required plans and programs.

1.6.3. The COMPANY shall furnish detailed and/or site specific plans or programs to the FEDERAL INSPECTOR as needed as the basis for requesting a NOTICE TO PROCEED in accordance with Stipulation 1.7.

1.7. NOTICE TO PROCEED

1.7.1. The COMPANY shall not initiate any field activity on FEDERAL LANDS pursuant to the authorization of which these Stipulations are a part without the prior specific permission of the FEDERAL INSPECTOR. Such permission for construction activities shall be given solely by a written NOTICE TO PROCEED issued by the FEDERAL INSPECTOR. Any NOTICE TO PROCEED shall permit field activities only as therein expressly stated and only for the particular field activities therein described. A NOTICE TO PROCEED may contain such site-specific terms and conditions as the FEDERAL INSPECTOR deems necessary.

1.7.2. Before applying for a NOTICE TO PROCEED, the COMPANY shall, in such manner as shall be acceptable to the FEDERAL INSPECTOR, by survey, locate and clearly mark on the ground the proposed centerline of the line of pipe and the location of all RELATED FACILITIES and, where applicable, the location of temporary use areas in the proposed work area.

1.7.3. Each application for a NOTICE TO PROCEED shall be supported by:

(1) A FINAL DESIGN or plan for that portion of the project with computations supporting the design.

(2) All applicable reports and results of environmental studies.

(3) All data necessary to demonstrate compliance with all Stipulations related to the particular activity.

(4) A detailed network analysis diagram for the CONSTRUCTION SEGMENT or SEGMENTS including: the COMPANY'S work schedules, applicable permits required by State and Federal agencies, design and review periods, data collection activities, and construction sequencing. The detailed network analysis diagram shall be updated as required to reflect current status of the project.

(5) A quality assurance program as specified in Stipulation 1.8.

(6) A map or maps, prepared in such manner as shall be acceptable to the FEDERAL INSPECTOR, depicting the proposed location of: (1) the boundaries of all associated temporary use areas, and (2) all improvements, buried or aboveground, that are to be constructed. The FEDERAL INSPECTOR shall not issue a NOTICE TO PROCEED until all relevant locations on the ground have been approved by the FEDERAL INSPECTOR and temporary boundary markers have been set by the COMPANY to the satisfaction of the FEDERAL INSPECTOR.

(7) Justification statements for all proposed design features or activities which may not be in conformance with these Stipulations.

(8) Detailed and/or site specific plans as specified in Stipulation 1.6.3.

1.7.4. Prior to submission of any applications for NOTICES TO PROCEED, the COMPANY and the FEDERAL INSPECTOR shall agree to a schedule for the submission, review and approval of such applications and on the scope of information to be contained therein. The schedule shall allow the FEDERAL INSPECTOR at least 120 days for review of each complete application for a NOTICE TO PROCEED. The schedule may be revised by mutual agreement, if necessary.

1.7.5. The FEDERAL INSPECTOR shall review each application for a NOTICE TO PROCEED and all data submitted in connection therewith in accordance with schedules as agreed upon pursuant to Stipulation 1.7.4.

1.7.6. The FEDERAL INSPECTOR shall issue a NOTICE TO PROCEED only when, in his judgment, applicable FINAL DESIGNS and other submissions required by Stipulations 1.6.1., 1.6.3. and 1.7.3. conform to these Stipulations.

1.7.7. By written order, following appropriate consultation with the COMPANY, the FEDERAL INSPECTOR may revoke or suspend in whole or in part any NOTICE TO PROCEED which has been issued when in his judgment unforeseen conditions later arising require alterations in the NOTICE TO PROCEED in order to: protect or maintain stability of foundation and earth materials; protect or maintain integrity of the PIPELINE SYSTEM; control or prevent serious or irreparable damage to the environment (including but not limited to fish or wildlife populations or their habitats); or remove hazards to public health and safety. The FEDERAL INSPECTOR shall expeditiously follow his revocation or suspension order with a more detailed written statement of the reason for the action.

1.8. QUALITY ASSURANCE AND CONTROL

1.8.1. The quality assurance and quality control programs shall be comprehensive and designed to assure that the applicable requirements of 49 CFR, Part 192 and environmental and technical Stipulations will be complied with throughout all phases of construction, operation, maintenance and termination of the PIPELINE SYSTEM. The COMPANY shall provide for inspection of PIPELINE construction to insure compliance with the approved design specifications and these Stipulations.

1.8.2. At a minimum, the following shall be included in the quality assurance program:

1.8.2.1. Procedures for the detection and prompt abatement of any actual or potential condition that is susceptible to abatement by the COMPANY, that could reasonably be expected to arise out of, or affect adversely, construction, operation, maintenance, or termination of all or any part of the PIPELINE SYSTEM, and that at any time may cause or threaten to cause (a) a hazard to the safety of workers or to public health or safety, including but not limited to personal injury or loss of life of any persons, or (b) harm or damage to the environment, including but not limited to areas of vegetation or timber, fish or other wildlife populations or their habitats, or any other natural resource.

1.8.2.2. Procedures for the repair and replacement of improved or tangible property and the rehabilitation of natural resources (including but not limited to REVEGETATION, restocking fish or other wildlife populations, and reestablishing their habitats) tht shall be seriously damaged or destroyed if the immediate cause of the damge or destruction arose in connection with, or results from, construction, operation, maintenance, or termination of all or any part of the PIPELINE SYSTEM.

1.8.2.3. Methods and procedures for achieving component and subsystems quality through proper design and specification.

1.8.2.4. Methods for incorporating quality assurance and control criteria in the selection of the COMPANY'S contractors, subcontractors, and in the contract purchases of materials and services.

1.8.2.5. A plan for collecting, recording, storing, retrieving and reviewing data to assure that quality has been attained, including procedures for maintaining adequate records of inspections, identification of deviations and completion of corrective actions.

1.8.2.6. Specific methods of detecting deviations from designs, plans, regulations, specifications, stipulations and permits, as the basis for initiating corrective action to preclude or rectify the hazards, harm or damage referenced in Sections 1.8.2.1. and 1.8.2.2. of these Stipulations.

1.8.2.7. Inspection, test and acceptance of components, sub-systems and sub-assemblies.

1.8.2.8. A plan for conducting surveys and field inspections of all facilities, processes and procedures of the COMPANY, its contractors, subcontractors, vendors and suppliers critical to the achievement of quality.

1.8.3. The COMPANY shall submit reports to the FEDERAL INSPECTOR to demonstrate that it is complying with the quality assurance and control program as approved. Such reports shall be submitted quarterly unless otherwise requested by the FEDERAL INSPECTOR.

1.9. CONDUCT OF OPERATIONS

1.9.1. The COMPANY shall perform PIPELINE SYSTEM operations in a safe and workmanlike manner so as to ensure protection of the environment and the safety and integrity of the PIPELINE and shall at all times employ qualified personnel and maintain equipment sufficient for that purpose. The COMPANY shall immediately notify the FEDERAL INSPECTOR of any condition, problem, malfunction, or other occurrence which in any way threatens the safety or integrity of the PIPELINE, or serious or irreparable harm to the environment.

1.10. SURVEILLANCE AND MAINTENANCE

1.10.1. During the construction, operation, maintenance and termination phases of the PIPELINE SYSTEM, the COMPANY shall conduct a surveillance and maintenance program in accordance with 49 CFR, Parts 191 and 192. At minimum, this program shall, with respect to the COMPANY'S activities, be designed to: (1) provide for public health and safety; (2) control or prevent damage to natural resources; (3) control or prevent erosion; (4) maintain PIPELINE integrity; and (5) control or prevent damage to public and private property.

1.10.2. The COMPANY shall maintain complete and up-to-date records on construction, operation, maintenance, and termination activities performed in connection with the PIPELINE SYSTEM. Such records shall include surveillance data, leak and break records, necessary operational data, modification records, and such other data as may be required by 49 CFR, Parts 191 and 192 and other applicable Federal laws and regulations.

1.11. HEALTH AND SAFETY

1.11.1 The COMPANY shall take all reasonable measures necessary to protect the health and safety of all persons directly affected by activities performed by the COMPANY in the general vicinity of the right-of-way or permit area in connection with construction, operation, maintenance or termination of the PIPELINE SYSTEM, and shall immediately abate any health or safety hazards. The COMPANY shall notify the FEDERAL INSPECTOR of accidents which occur in connection with such activities in frequency and detail identical to OSHA reporting requirements.

1.12. PUBLIC AND PRIVATE IMPROVEMENTS

1.12.1. The COMPANY shall provide reasonable protection to existing public or private improvements on FEDERAL LANDS which may be adversely affected by its activities during construction, operation, maintenance, and termination of the PIPELINE SYSTEM. If it is determined that the COMPANY has caused damage to such public and private improvements, and if the owner so requires, then the COMPANY shall promptly repair the property to a condition which is satisfactory to the owner but not to exceed its condition prior to damage.

1.13. SURVEY MONUMENTS

1.13.1. The COMPANY shall mark and protect all survey monuments, corners or accessories encountered during construction, operation, maintenance, and termination of the PIPELINE SYSTEM. These monuments are not to be disturbed; however, if such a disturbance occurs, the FEDERAL INSPECTOR shall be immediately notified thereof in writing.

1.14. FIRE PREVENTION AND SUPPRESSION

1.14.1. The COMPANY shall promptly notify the FEDERAL INSPECTOR of any fires on, or which may threaten any portion of, the PIPELINE SYSTEM and shall take all measures necessary or appropriate for the prevention and suppression of fires in accordance with applicable law. The COMPANY shall comply with the instructions and directions of the FEDERAL INSPECTOR concerning the use, prevention and suppression of fires on FEDERAL LANDS. Use of open fires in connection with construction, operation, maintenance and termination of the PIPELINE SYSTEM is prohibited on FEDERAL LANDS unless authorized in writing by the FEDERAL INSPECTOR.

1.15. ELECTRONICALLY OPERATED DEVICES

1.15.1. The COMPANY shall, as necessary, screen, filter, or otherwise suppress any electronically operated devices installed as part of the PIPELINE SYSTEM which are capable of producing electromagnetic interference radiations so that such devices will not adversely affect the functioning of existing communications systems or navigational aids. In the event that structures such as towers or buildings are to be erected as parts of the PIPELINE SYSTEM, their positioning shall be such that they will not obstruct radiation patterns of existing line-of-sight communications systems, navigational aids, or similar systems.

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1.16. TERMINATION OF AUTHORIZATION

1.16.1 Upon revocation or termination of the authorization of which these Stipulations are a part, the COMPANY shall remove all improvements and equipment from the FEDERAL LANDS, unless otherwise approved in writing by the FEDERAL INSPECTOR, and provided that restoration has been completed to the satisfaction of the FEDERAL INSPECTOR. Procedures to abandon a buried PIPELINE shall be in accordance with the requirements specified in 49 CFR, Part 192, Section 727.

1.17. STOP ORDERS

1.17.1. Designated field representatives of the FEDERAL INSPECTOR may issue a stop order at the site of the activity to any designated representative of the COMPANY, and the COMPANY shall cease the activity immediately. Except in emergencies, all stop orders shall be in writing. The FEDERAL INSPECTOR shall maintain a record of all stop orders, the officer who issued the order, the time and date of the order, and the reason for issuance. Stop orders shall automatically expire at the expiration of 24 hours from time of issuance unless extended by written order of the FEDERAL INSPECTOR. It shall be the policy of the FEDERAL INSPECTOR to issue stop orders only when: there is a violation of these Stipulations, permit conditions or a NOTICE TO PROCEED; or mitigating or corrective measures cannot be identified or agreed on, after consultation with the responsible field personnel of the COMPANY, and immediately implemented.

2. ENVIRONMENTAL

2.1. ENVIRONMENTAL BRIEFINGS

2.1.1. Prior to, and during, construction, operation, maintenance, and termination of the PIPELINE SYSTEM, the COMPANY shall develop and provide environmental and other pertinent briefings for supervisory and field personnel directly related to the project and for Federal field representatives. The environmental briefings must be submitted for review to, and approved by, the FEDERAL INSPECTOR prior to implementation.

2.2. POLLUTION CONTROL

2.2.1. GENERAL

2.2.1.1. The COMPANY shall construct, operate, maintain, and terminate the PIPELINE SYSTEM in a manner that will avoid or minimize degradation of air, land, and water quality. The COMPANY shall comply with applicable air and water quality standards and Federal laws, regulations, and permit requirements relating to pollution control or prevention.

2.2.2. WATER AND LAND POLLUTION

2.2.2.1. The COMPANY shall comply with applicable State Water Quality Standards as approved by the Environmental Protection Agency's National Pollutant Discharge Elimination System discharge permit program.

2.2.2.2. Mobile ground equipment shall not be operated in lakes, WETLANDS, streams or rivers unless such operation is approved in writing by the FEDERAL INSPECTOR.

2.2.2.3. The temperature of natural surface or ground water shall not be changed significantly by any construction-related activities, unless approved in writing by the FEDERAL INSPECTOR.

2.2.3. PESTICIDES, HERBICIDES, AND OTHER CHEMICALS

2.2.3.1. The COMPANY shall use only nonpersistent and immobile types of pesticides, herbicides, and other chemicals. Only those pesticides and herbicides registered by the Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act shall be applied. Applications of pesticides and herbicides shall be in accordance with applicable regulations of the state and label directions approved by the U.S. Environmental Protection Agency. The pesticides, herbicides, and chemicals plan required in Stipulation 1.6. shall address such general and site-specific procedures and restrictions as are necessary to assure proper application of pesticides, herbicides, and such other chemicals as may be specifically delineated in consultation with the FEDERAL INSPECTOR and concerned Federal agencies.

2.2.4. SANITATION AND WASTE DISPOSAL

2.2.4.1. "WASTE" means all discarded matter other than construction spoil. It includes, but is not limited to, human WASTE, trash, garbage, refuse, OIL drums, petroleum products, ashes, and equipment.

2.2.4.2. All WASTE generated in construction, operation, maintenance, and termination of the PIPELINE SYSTEM shall be removed or otherwise disposed of in a manner acceptable to the FEDERAL INSPECTOR. All applicable Federal and State WASTE disposal requirements shall be met by the COMPANY.

2.3. BUFFER STRIPS

2.3.1. No construction activity in connection with the PIPELINE SYSTEM shall be conducted within one-half (1/2) mile of any officially designated Federal, State or municipal park, wildlife refuge, research natural area, recreation area, recreation site, or any registered National Historic Site or National Landmark, unless such activity is approved in writing by the FEDERAL INSPECTOR. However, implementation of this Stipulation shall in no way compel a change in the basic nature and general route of the transportation system described in the President's Decision.

2.3.2. Where the PIPELINE right-of-way crosses State highways, vegetation native to the adjacent areas shall be established over disturbed areas in accordance with the approved restoration plan required by Stipulation 1.6.

2.3.3. The PIPELINE SYSTEM shall be located so as to provide five hundred (500) foot minimum buffer strips of undisturbed land between the PIPELINE SYSTEM and streams, lakes, and WETLANDS unless otherwise approved in writing by the FEDERAL INSPECTOR. It is recognized that there will be extensive construction in WETLANDS which shall be addressed in the plan required in Stipulation 1.6.

2.4. EROSION AND SEDIMENTATION CONTROL

2.4.1. GENERAL

2.4.1.1. The COMPANY shall perform all PIPELINE SYSTEM construction, operation, maintenance, and termination activities so as to minimize disturbance to all surface areas.

2.4.1.2. The design of the PIPELINE SYSTEM shall provide for the control of erosion and reduction of sediment production, transport and deposit.

2.4.1.3. Erosion control measures, including structures if necessary, shall be implemented to the satisfaction of the FEDERAL INSPECTOR in accordance with the plans approved under Stipulation 1.6.

2.4.1.4. Surface materials suitable for use in restoration taken from disturbed areas shall be stockpiled and utilized during restoration in accordance with the plans required by Stipulation 1.6. Erosion and sediment control practices to be utilized shall be determined by the needs of specific sites and, as appropriate, shall include, but not be limited to REVEGETATION, mulching, and placement of mat binders, soil binders, rock or gravel blankets or structures.

2.4.2. CROSSING OF STREAMS, RIVERS OR FLOODPLAINS

2.4.2.1. The COMPANY shall minimize erosion and sedimentation at stream, river and WETLAND crossings and those parts of the PIPELINE SYSTEM within floodplains as provided in Stipulation 3.4.

2.4.2.2. Temporary access over streambanks prior to and following trenching shall be made through use of fill ramps rather than by cutting through streambanks, unless otherwise approved in writing by the FEDERAL INSPECTOR. The COMPANY shall remove such ramps upon termination of seasonal or final use. Ramp materials shall be disposed of in a manner approved in writing by the FEDERAL INSPECTOR.

2.4.2.3. Excavated materials shall not be stockpiled in rivers, streams, floodplains or on ice unless approved in writing by the FEDERAL INSPECTOR. In WETLANDS, stockpiling shall be done in accordance with the plan required by Stipulation 1.6.

2.4.3. EXCAVATED MATERIAL

2.4.3.1. Excavated material in excess of that required to backfill around any structure, including the pipe, shall be disposed of in a manner approved in writing by the FEDERAL INSPECTOR.

2.5. FISH AND WILDLIFE PROTECTION

2.5.1. The COMPANY shall design, construct, operate, maintain, and terminate the PIPELINE SYSTEM so as to assure free passage and movement of fish, except for such temporary blockages as the FEDERAL INSPECTOR may approve. The proposed designs and construction plans shall be submitted to the FEDERAL INSPECTOR for approval and will include the time and place that temporary blockages will occur because of instream activities.

2.5.2. Pump intakes shall be screened to prevent harm to fish in accordance with screening criteria set by Federal or State fish and wildlife agencies. If such criteria are not available, screening specifications shall be approved by the FEDERAL INSPECTOR.

2.5.3. When abandoned, water diversion structures shall be removed or plugged and stabilized unless otherwise approved in writing by the FEDERAL INSPECTOR.

2.5.4. If material sites are approved adjacent to or in lakes, rivers, streams or WETLANDS, the FEDERAL INSPECTOR may require the COMPANY to construct levees, berms or other suitable means to protect fish and fish passage and to prevent or minimize siltation.

2.5.5. FISH SPAWNING BEDS, FISH REARING AREAS, AND OVERWINTERING AREAS

2.5.5.1. "FISH SPAWNING BEDS" means those areas where anadromous and resident fish deposit their eggs.

2.5.5.2. "FISH REARING AREAS" means those areas inhabited by fish during all life stages including hatching and maturity.

2.5.5.3. "OVERWINTERING AREAS" means those areas inhabited by fish between freezeup and breakup.

2.5.5.4. The COMPANY shall avoid disturbances to those FISH SPAWNING BEDS, FISH REARING AREAS, and OVERWINTERING AREAS as designated by the FEDERAL INSPECTOR; however, where disturbances cannot be avoided, proposed modifications and appropriate mitigation measures shall be designed by the COMPANY and approved in writing by the FEDERAL INSPECTOR.

2.5.5.5. The COMPANY shall protect FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS from sediment where soil material is expected to be suspended in water as a result of construction activities. Settling basins or other sediment control structures shall be constructed to intercept silt before it reaches rivers, streams, lakes or WETLANDS, unless otherwise approved by the FEDERAL INSPECTOR.

2.5.5.6. The COMPANY shall comply with site-specific terms and conditions imposed by the FEDERAL INSPECTOR to protect FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS. The COMPANY shall repair damage to such areas caused by construction, operation, maintenance or termination of the PIPELINE SYSTEM to the satisfaction of the FEDERAL INSPECTOR as stated in writing.

2.5.5.7. The COMPANY shall not take water from FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS or waters that directly replenish those areas during critical periods that will be defined by the FEDERAL INSPECTOR, unless otherwise approved by the FEDERAL INSPECTOR in accordance with Stipulation 2.5.6.

2.5.6. ZONES OF RESTRICTED ACTIVITIES

2.5.6.1. Activities of the COMPANY in connection with construction, operation, maintenance and termination of the PIPELINE SYSTEM in key fish and wildlife areas and in specific areas where threatened or endangered species of animals are found may be restricted by the FEDERAL INSPECTOR during periods of fish and wildlife breeding, nesting, spawning, lambing and calving activity, overwintering, and during major migrations of fish and wildife, or when necessary to insure that such activity will not jeopardize the continued existence of an endangered or threatened species, or modify or destroy its critical habitat. The FEDERAL INSPECTOR shall provide the COMPANY written notice of such restrictive action. At least annually, and as far in advance of such restrictions as is possible, the FEDERAL INSPECTOR shall furnish the COMPANY an updated list of areas where such actions may be required, together with anticipated dates of restriction.

2.5.7. BIG GAME MOVEMENTS

2.5.7.1. The COMPANY shall design, construct, and maintain the PIPELINE SYSTEM so as to assure free passage and movement of big game animals.

2.6. PURCHASE OF MATERIALS

2.6.1. If the COMPANY requires mineral materials from the public lands of the United States, the COMPANY shall make application to purchase such materials in accordance with 43 CFR, Part 3610. The COMPANY shall submit a mining plan for materials sites in accordance with 43 CFR, Part 23. No materials may be removed by the COMPANY without the written approval of the FEDERAL INSPECTOR. Application to purchase merchantable timber shall be made under applicable regulations.

2.7. CLEARING PROCEDURES

2.7.1. Slash, vegetation, nonmerchantable timber, overburden, and other materials removed during clearing operations shall be disposed of in a manner approved in writing by the FEDERAL INSPECTOR in accordance with the plans required under Stipulation 1.6. All debris resulting from clearing operations and construction that may block streamflow, delay fish passage, contribute to flood damage, or result in streambed scour or erosion shall be removed within 48 hours.

2.8. DISTURBANCE OR USE OF NATURAL WATERS

2.8.1. All activities of the COMPANY in connection with the PIPELINE SYSTEM that may create new lakes, drain existing lakes, significantly divert natural drainages and surface runoff, permanently alter stream or ground water hydraulics, disturb WETLANDS, or disturb significant areas of streambeds are prohibited unless such activities along with necessary mitigation measures are approved in writing by the FEDERAL INSPECTOR.

2.8.2. The COMPANY shall not develop or utilize any wells or surface water sources on FEDERAL LANDS for the construction, operation, maintenance or termination of the PIPELINE SYSTEM without the prior written approval of the FEDERAL INSPECTOR.

2.9. OFF RIGHT-OF-WAY TRAFFIC

2.9.1. The COMPANY shall not operate mobile ground equipment on FEDERAL LAND off the right-of-way, any roads, or State highways or authorized areas unless approved in writing by the FEDERAL INSPECTOR or when necessary to prevent immediate harm to any person.

2.10. VISUAL RESOURCES

2.10.1. The COMPANY shall consider visual resources in planning, construction, operation, and termination of the PIPELINE SYSTEM. The COMPANY shall prepare a visual resource plan for the PIPELINE SYSTEM in accordance with Stipulation 1.6.

2.11. USE OF EXPLOSIVES

2.11.1. The COMPANY shall submit a plan for storage and use of explosives, including, but not limited to, blasting techniques and timing and location of blasting, to the FEDERAL INSPECTOR for approval in accordance with Stipulation 1.6.

2.11.2. No blasting shall be done under water or within one quarter (1/4) mile of streams or lakes with identified fisheries or wildlife resources except as approved in the blasting plan required under Stipulation 1.6.

2.12. RESTORATION

2.12.1. Upon completion of use, the COMPANY shall restore all areas of FEDERAL LANDS disturbed by it, in accordance with schedules approved by the FEDERAL INSPECTOR and approved plans required under Stipulation 1.6. Restoration performed by the COMPANY shall be approved in writing by the FEDERAL INSPECTOR.

2.12.2. Restoration includes, where appropriate, erosion and sediment control, REVEGETATION, reestablishment of native species, and stabilization. Unless otherwise directed by the FEDERAL INSPECTOR, all disturbed areas of FEDERAL LANDS shall be put-to-bed. "Put-to-bed" means that the areas shall be left in such stabilized condition that erosion will be minimized through the use of adequately designed and constructed waterbars, REVEGETATION and chemical surface control; that culverts and bridges shall be removed, unless otherwise approved in writing by the FEDERAL INSPECTOR, and slopes restored by the COMPANY in a manner satisfactory to the FEDERAL INSPECTOR and that use of such areas by the COMPANY shall cease.

2.12.3. REVEGETATION of disturbed areas of FEDERAL LANDS shall be accomplished as soon as practicable in accordance with plans required under Stipulation 1.6. and approved by the FEDERAL INSPECTOR. The results of REVEGETATION must be satisfactory to the FEDERAL INSPECTOR as stated in writing. "REVEGETATION" means the establishment of plant cover on disturbed lands through techniques including, but not limited to, seedbed preparation, seeding, planting, fertilizing, mulching, and watering.

2.12.4. The COMPANY shall dispose of all materials from ROADS, haul ramps, berms, dikes, and other earthen structures it has placed on FEDERAL LANDS in accordance with approved restoration plans unless otherwise directed by the FEDERAL INSPECTOR.

2.12.5. Pending restoration of a disturbed area of FEDERAL LANDS, the COMPANY shall maintain the area in a stabilized condition satisfactory to the FEDERAL INSPECTOR.

2.12.6. Upon completion of restoration of an area of FEDERAL LANDS, the COMPANY shall remove all equipment and supplies from that area in accordance with approved restoration plans unless otherwise directed by the FEDERAL INSPECTOR.

2.12.7. The COMPANY shall maintain all restored areas of FEDERAL LANDS in accordance with approved plans required under Stipulation 1.6.

2.13. REPORTING, PREVENTION, CONTROL, CLEANUP AND DISPOSAL OF OIL AND HAZARDOUS SUBSTANCES DISCHARGES

2.13.1. The COMPANY shall give notice in accordance with applicable law of any spill, leakage, or discharge of OIL or other HAZARDOUS SUBSTANCE in connection with the construction, operation, maintenance or termination of the PIPELINE SYSTEM to (1) the FEDERAL INSPECTOR and (2) such other Federal and State officials as are required by law to be given such notice. Any oral notice shall be confirmed in writing as soon as possible.

2.13.2. The COMPANY shall submit an OIL and HAZARDOUS SUBSTANCES prevention, control, cleanup and disposal plan to the FEDERAL INSPECTOR in accordance with Stipulation 1.6. The plan shall conform to this Stipulation and shall outline all areas where OIL and/or HAZARDOUS SUBSTANCES are stored, utilized, transported or distributed. The plan shall include fuel distribution systems, storage and containment, containerized products, leak detection systems, handling procedures, training programs, provisions for collection, storage and ultimate disposal of waste OIL, cleanup methods, disposal sites and other criteria as may be required under Stipulation 1.6. The plan shall be approved in writing by the FEDERAL INSPECTOR and the COMPANY shall demonstrate its capability and readiness to execute the plan.

2.14. PIPELINE CONTINGENCY PLAN

2.14.1. The COMPANY shall submit a PIPELINE contingency plan to the FEDERAL INSPECTOR in accordance with Stipulation 1.6. The plans shall conform to this Stipulation and shall outline the steps to be taken in the event of a break, leak or explosion in the PIPELINE. The plan shall be approved in writing by the FEDERAL INSPECTOR prior to PIPELINE startup and the COMPANY shall demonstrate its capability and readiness to execute the plan.

2.14.2. The COMPANY shall, as appropriate, update the plan and methods of implementation thereof, which shall be submitted annually to the FEDERAL INSPECTOR for his written approval.

2.15. CULTURAL RESOURCES

2.15.1. The COMPANY shall undertake the affirmative responsibility to identify, protect and preserve cultural, historic, prehistoric and archeological resources that may be impacted by the PIPELINE SYSTEM consistent with the National Historic Preservation Act of 1966, as amended, and the implementing procedures of the Advisory Council on Historic Preservation, 36 CFR Part 800. This responsibility will be conducted in a manner consistent with the terms of a Memorandum of Agreement, under Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. § 470f, 80 Stat. 915, between the Advisory Council on Historic Preservation, the State Historic Preservation Officer, and appropriate Federal and State officials. The agreement will include a plan for complying with these and other statutes and regulations applicable to historic and prehistoric resources protection. Additional protection responsibilities established by the Archeological and Historic Preservation Act shall be implemented in the manner provided by the State of Program Approach for this Act as published at 44 Fed. Reg. 18117 et seq., March 26, 1979.

3. TECHNICAL

3.1. PIPELINE SYSTEM STANDARDS

3.1.1. GENERAL STANDARDS

3.1.1.1. All design, material and construction, operation, maintenance, and termination practices employed in the PIPELINE SYSTEM shall be in accordance with safe and proven engineering practice and, with regard to the PIPELINE, shall meet or exceed the Department of Transportation Regulations, 49 CFR, Parts 191, "Reports of Leaks," and 192, "Transportation of Natural and Other Gas by Pipelines: Minimum Federal Safety Standards."

3.1.2. SPECIAL STANDARDS

3.1.2.1. The PIPELINE design shall provide for sectionalizing block valves, protective devices to prevent overpressuring, and other safety devices installed at locations required by Federal safety standards.

3.1.2.2. The COMPANY shall inspect the main line girth welds in accordance with 49 CFR, Part 192, Subpart E, using radiographic or other nondestructive inspection techniques to assure compliance with defect acceptability standards.

3.1.2.3. The PIPELINE design in environmentally sensitive areas shall provide for minimum maintenance needs to reduce re-entry requirements.

3.1.3. STANDARDS FOR ROADS

3.1.3.1. The COMPANY shall submit a layout of each proposed ROAD for approval by the FEDERAL INSPECTOR in accordance with Stipulation 1.7.

3.1.3.2. ROADS shall be constructed to standards suitable for safe operation of equipment at the travel speeds proposed by the COMPANY.

3.2. EARTHQUAKES

3.2.1. The PIPELINE SYSTEM shall be designed to withstand, without rupture, the maximum probable earthquake that could occur based upon consideration of regional tectonics within existing geologic framework, in accordance with 49 CFR, Part 192.

3.2.2. The COMPANY shall provide the FEDERAL INSPECTOR data from existing monitoring systems. A determination by the FEDERAL INSPECTOR will be made on what other systems are necessary to ensure there are adequate procedures for safe shutdown of the PIPELINE under severe seismic conditions.

3.3. SLOPE STABILITY

3.3.1. Areas subject to mudflows, landslides, avalanches, rock falls, and other types of mass movements shall be avoided where practicable in locating the PIPELINE. Where such avoidance is not practicable, the PIPELINE design, based upon detailed field investigations and analyses, shall provide measures to prevent the occurrence of, or protect the PIPELINE against, the effects of mass movement.

3.4. STREAM AND FLOODPLAIN CROSSINGS AND EROSION

3.4.1. GENERAL

3.4.1.1. The PIPELINE SYSTEM shall be designed so as to both minimize the number of stream and WETLAND crossings and to include, but not be limited to, consideration of erosion and sedimentation, restriction of natural meander, or alteration of the physical or chemical nature of the water body.

3.4.1.2. For each region through which the PIPELINE passes, the PIPELINE shall be designed to withstand or accommodate the effects (including runoff, stream and floodplain erosion, meander cutoffs, lateral migration, ice jams and icings) of those meteorologic, hydrologic (including surface and subsurface) and hydraulic conditions considered reasonably probable for the region. For stream crossings and portions of the PIPELINE within the floodplain, the following standards shall apply to such PIPELINE design:

3.4.1.2.1. The design flood shall be based on the concept of the "Standard Project Flood" as defined in Corps of Engineers Bulletin 52-8, Part 1, unless otherwise approved by the FEDERAL INSPECTOR.

3.4.1.2.2. The depth of channel scour shall be established by appropriate field investigations and theoretical calculations using those combinations of water velocity and depth that yield the maximum value. At the point of maximum scour, the cover over the pipe shall be a least twenty (20) percent of the computed scour, but not less than four (4) feet.

3.4.1.2.3. For overhead crossings, comparable analysis shall be made to insure that support structures are adequately protected from the effects of scour, channel migration, undercutting, ice forces, and other external and internal loads.

3.4.1.2.4. In floodplains, appropriate construction procedures shall be used wherever there is potential channelization along the pipe.

3.4.1.2.5. Method of constructing stream crossings, including excavation and backfill of pipe trench near and through streambanks, shall be approved in writing by the FEDERAL INSPECTOR.

3.4.1.3. Low water stream crossings (fords across streams or rivers where any mobile ground equipment is moved on the streambed) shall be constructed, maintained, and restored to standards approved in writing by the FEDERAL INSPECTOR.

3.4.2. EROSION

3.4.2.1. Where necessary because of outfall erosion, stilling basins shall be constructed at the outflow end of culverts. To prevent erosion, the pool sides shall be stabilized by appropriate methods, e.g., by the use of riprap.

3.4.2.2. Slopes of cuts through streambanks shall be designed and constructed to minimize erosion and prevent slides.

3.4.2.3. Erosion control procedures shall accommodate and be based on the runoff produced by the maximum rainfall rate and snow melt combination reasonably characteristic of the region.

3.4.3. CULVERTS AND BRIDGES

3.4.3.1. Culverts and bridges necessary for maintenance of the PIPELINE SYSTEM shall be designed at a minimum to accommodate a fifty (50) year flood in accordance with criteria established by the American Association of State Highway Officials and the Federal Highway Administration, or as required by the FEDERAL INSPECTOR.

3.4.3.2. Temporary culverts necessary for construction of the PIPELINE shall be installed as approved by the FEDERAL INSPECTOR in accordance with good construction practices and be of adequate size to accommodate the required stream flow and will not inhibit the movement of, or damage fish. These culverts will be removed following construction.

3.5. PIPELINE CORROSION

3.5.1. The COMPANY shall provide information on planning for a corrosion resistant design and methods for early detection of corrosion. This shall include consideration of: (1) pipeline material and welding techniques to be used and information on their particular suitability for the environment involved; (2) details on the external pipe protection to be provided (coating, wrapping, etc.), including information

on variations of the coating process to cope with variations in environmental factors along the PIPELINE route; (3) plans for cathodic protection including details of impressed current sources and controls to insure continuous maintenance of adequate protection over the entire surface of the pipe; (4) details of plans for monitoring cathodic protection current including spacing of current monitors; (5) provision for periodic intensive surveys of trouble spots, regular preventative maintenance surveys, and special provisions for abnormal potential patterns resulting from other pipelines or cables; and (6) information on any precautions required to prevent internal corrosion of the PIPELINE.

3.6. OPERATION AND MAINTENANCE

3.6.1. Operation and maintenance activities in connection with the PIPELINE SYSTEM shall be conducted so as to avoid or minimize thermal and other environmental changes and to provide maximum protection to fish and wildlife and their habitat.

3.6.2. Plans, procedures and quality controls to comply with Stipulation 3.6.1. shall be submitted in accordance with Stipulation 1.6.

3.6.3. A monitoring system shall be developed by the COMPANY in accordance with 49 CFR, Part 192, and approved by the FEDERAL INSPECTOR. This system shall be operational prior to transmission of GAS through the PIPELINE.

STIPULATIONS
WESTERN LEG

1. GENERAL

1.1. DEFINITIONS

1.1.1. The following definitions apply to terms used in these Stipulations. They shall also apply to terms used in documents to which these Stipulations are attached unless specifically provided otherwise in such documents.

1.1.2. The "AGENCY" means the Federal agency which has issued the authorization of which this Exhibit is a part.

1.1.3. "AUTHORIZED OFFICER" means the employee of the AGENCY to whom the head of the AGENCY has delegated the authority to administer the authorization of which this Exhibit is a part, or an employee so designated by an AGENCY with enforcement functions transferred to the FEDERAL INSPECTOR by Reorganization Plan No. 1 of 1979.

1.1.4. The "COMPANY" means Pacific Gas and Electric Company, its successors and assigns.

1.1.5. "CONSTRUCTION SEGMENT" means a portion of the PIPELINE SYSTEM, as agreed upon by the COMPANY and the FEDERAL INSPECTOR, that constitutes a complete physical entity or stage, in and of itself, which can be constructed, independently of any other portion or stage of the PIPELINE SYSTEM in a designated area or between two given geographical points.

1.1.6. "FEDERAL INSPECTOR" means the officer appointed by the President with the advice and consent of the Senate pursuant to Section 7(a)(5) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719e, and Reorganization Plan No. 1 of 1979.

1.1.7. "FEDERAL LANDS" means all lands owned by the United States except lands in the National Park System, lands held in trust for an Indian or Indian tribe, and lands on the Outer Continental Shelf.

1.1.8. "FINAL DESIGN" means completed design documents suitable for bid advertisement, including contract plans and specifications; proposed construction modes; operational requirements necessary to justify designs; design analysis (including calculations for each particular design feature); all functional and engineering criteria; summaries of engineering tests conducted and their results; and other considerations pertinent to design.

1.1.9. "GAS" means a gaseous mixture, principally of methane and other paraffinic hydrocarbons, suitably conditioned to an acceptable specification for transportation by the PIPELINE.

1.1.10. "HAZARDOUS SUBSTANCES" means substances defined as hazardous by the Environmental Protection Agency, the Department of Transportation or as specified in writing by the FEDERAL INSPECTOR in consultation

with the Environmental Protection Agency's and the Department of Transportation's AUTHORIZED OFFICERS during the review of the COMPANY'S HAZARDOUS SUBSTANCES plan.

1.1.11. "NOTICE TO PROCEED" means a written permission to initiate PIPELINE SYSTEM construction that is issued in accordance with Stipulation 1.7.

1.1.12. "OIL" means oil of any kind or any form, including but not limited to fuel oil, sludge, oil refuse, and oil mixed with WASTE other than dredged spoil.

1.1.13. "PIPELINE" means the line of pipe and RELATED FACILITIES authorized on FEDERAL LANDS by the United States Department of the Interior by Right-of-Way Grant No._____.

1.1.14. "PIPELINE SYSTEM" means all facilities on FEDERAL LANDS which are constructed or used by the COMPANY pursuant to the Alaska Natural Gas Transportation Act. The term includes the PIPELINE and its RELATED FACILITIES; it does not include facilities used by others in the production, gathering or conditioning of GAS. The term also includes temporary facilities and temporary use areas used by the COMPANY for the construction, operation, maintenance, or termination of the PIPELINE. It does not include facilities, such as urban administrative offices, which are only indirectly involved in the transportation of GAS.

1.1.15. A. "RELATED FACILITIES" means those structures, devices, improvements and sites on FEDERAL LANDS, other than the pipe, which are constructed by the COMPANY as part of the PIPELINE and the substantially continuous use of which is necessary for the operation and maintenance of the PIPELINE. RELATED FACILITIES includes, if applicable: supporting structures; access roads; compressor stations, including associated buildings, structures, yards and fences; valves and other control devices and structures housing them; bridges, culverts and low-water crossings; monitoring and communication devices and structures housing them; yards and structures; retaining walls, berms, dikes, ditches, cuts and fills, including hydraulic control structures; structures and areas for storing supplies and equipment; cathodic protection devices; and other facilities of a similar nature as the AUTHORIZED OFFICER shall determine to be RELATED FACILITES.

B. "RELATED FACILITIES" does not mean those facilities used by the COMPANY only temporarily, such as construction camps and temporary roads.

1.1.16. "ROADS" means roads on FEDERAL LANDS, other than State or public highways, that are constructed or used by the COMPANY in connection with the construction, operation, maintenance or termination of the PIPELINE SYSTEM.

1.1.17. "WETLANDS" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that

under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. WETLANDS generally include swamps, marshes, bogs, and similar areas.

1.2. APPLICABILITY

1.2.1. These Stipulations set forth the general standards of environmental and construction performance, and the procedures for the submission and approval of construction plans and environmental safeguards, that are required by Section III, 1, of the Terms and Conditions set forth in the Decision and Report to Congress on the Alaska Natural Gas Transportation System which was transmitted to the Congress by the President on September 22, 1977, pursuant to the Alaska Natural Gas Transportation Act of 1976, 15 U.S.C. §§ 719, et seq.

1.2.2. During the construction, operation, maintenance and termination of the PIPELINE SYSTEM, the COMPANY shall comply with these Stipulations. Although the Stipulations provide for enforcement by the FEDERAL INSPECTOR, it is intended that the Stipulations shall also be enforced by the AUTHORIZED OFFICER, as provided in Reorganization Plan No. 1 of 1979.

1.2.3. The following conditions shall apply to the construction, operation, maintenance, and termination of the PIPELINE SYSTEM. Unless clearly inapplicable, the requirements and prohibitions imposed upon the COMPANY by these Stipulations are also imposed upon the COMPANY'S agents, employees, contractors, and subcontractors, and the employees of each of them. (1) The COMPANY shall ensure compliance with these Stipulations by its agents, employees, and contractors (including subcontractors at any level), and the employees of each of them. (2) Failure or refusal of the COMPANY'S agents, employees contractors, subcontractors, or their employees to comply with these Stipulations shall be deemed to be the failure or refusal of the COMPANY. (3) Where appropriate the COMPANY shall require its agents, employees, contractors and subcontractors to include these Stipulations in all contracts and subcontracts which are entered into by any of them, together with a provision that the other contracting party, together with its agents, employees, contractors and subcontractors, and the employees of each of them, shall likewise be bound to comply with these Stipulations. (4) In consonance with Section 9 of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, Federal agencies issuing and enforcing these Stipulations shall not impose any other environmental or technical Stipulations generally applicable to FEDERAL LANDS unless specifically mandated by Federal statute; however, this shall not preclude the imposition of terms and conditions by Federal agencies, also in consonance with Section 9 of the Alaska Natural Gas Transportation Act, to accommodate site-specific concerns.

1.2.4. Nothing in these Stipulations shall be construed as applying to activities of the COMPANY that have no relation to the PIPELINE SYSTEM.

1.2.5. In the implementation of the authorization of which these Stipulations are a part, the following principles shall apply:

(1) In the construction, operation, maintenance (including but not limited to a continuing and reasonable program of preventive maintenance) and termination of the PIPELINE SYSTEM, the COMPANY shall employ all practicable means and measures to preserve and protect the environment, as provided in these Stipulations.

(2) The COMPANY and the FEDERAL INSPECTOR shall balance environmental amenities and values with economic practicalities and technical capabilities, so as to be consistent with applicable national policies. In so doing, they shall take into account, among other considerations, the following:

(a) The benefit or detriment to persons, property and the environment that may be anticipated to result from a proposed course of conduct;

(b) The particular environmental, technical, and economic benefits or detriments reasonably expected to flow from a proposed course of conduct;

(c) The effect on the energy needs of the United States, including the possible effects of a disruption of national or regional GAS supply, that may result from a particular course of conduct.

(3) The COMPANY shall manage, supervise and implement the construction, operation, maintenance and termination of the PIPELINE SYSTEM in accordance with safe and proven engineering practice, to the extent allowed by the state of the art and the development of technology. In the exercise of these functions, the COMPANY consents and shall submit to such review, inspection and compliance procedures relating to construction, operation, maintenance and termination of the PIPELINE SYSTEM as are provided for in these Stipulations and applicable authorizations.

These Stipulations are not intended in any way to derogate from, or be construed as being inconsistent with, applicable provisions of law.

1.2.6. Nothing in these Stipulations shall be construed to affect any right or cause of action that otherwise would be available to the COMPANY against any person. The United States and the COMPANY do not

intend to create any rights under these Stipulations that may be enforced by third parties for their own benefit or for the benefit of others.

1.3. RESPONSIBILITIES

1.3.1. Subject to Section 9(d) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, the COMPANY shall comply with these Stipulations and lawful orders of the FEDERAL INSPECTOR implementing these Stipulations.

1.3.2. The authority and obligations of the FEDERAL INSPECTOR, as provided in these Stipulations, shall be exercised and met by the FEDERAL INSPECTOR during the period when the Office of the FEDERAL INSPECTOR is in existence pursuant to the provisions of Reorganization Plan No. 1 of 1979. Prior to the establishment of the Office of the FEDERAL INSPECTOR, and upon the termination of that Office, the authority and obligations of the FEDERAL INSPECTOR shall be performed by the appropriate officers of the Federal agencies normally having jurisdiction over such matters.

1.3.3. Failure of the COMPANY to comply with these Stipulations and implementing orders of the FEDERAL INSPECTOR shall constitute grounds for appropriate enforcement action by the FEDERAL INSPECTOR pursuant to the authority vested in him by law.

1.3.4. The COMPANY shall designate a representative who shall be empowered on behalf of the COMPANY to communicate with, and to receive and comply with all communications and orders of, the FEDERAL INSPECTOR. The COMPANY shall also designate field representatives who shall be authorized to communicate and cooperate with field representatives of the FEDERAL INSPECTOR. The COMPANY shall keep the FEDERAL INSPECTOR informed of any change of the COMPANY'S representatives during the construction, operation, maintenance, and termination of the PIPELINE SYSTEM.

1.3.5. The FEDERAL INSPECTOR may require the COMPANY at any time to furnish any or all data related to construction, operation, maintenance, and termination activities undertaken in connection with the PIPELINE SYSTEM, as may be reasonably relevant to the FEDERAL INSPECTOR'S responsibilities in connection with construction, operation, maintenance and termination of the PIPELINE SYSTEM; provided, however, that access to such documents is not prohibited or limited by law or regulation, and provided further that any such data furnished shall be subject to the provisions of the Freedom of Information Act, 5 U.S.C. § 552. The FEDERAL INSPECTOR shall impose such a requirement in writing, specifying the data required, the desired date and place of delivery, and the medium to be employed, taking into consideration the time reasonably required to provide the data and the costs involved.

1.3.6. Consonant with the provisions of Section 9(d) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g, and prior to the issuance of a NOTICE TO PROCEED, the FEDERAL INSPECTOR may by written order require the COMPANY to make such modification of the PIPELINE SYSTEM as he deems necessary to: protect or maintain stability of foundation and other earth materials;

protect or maintain integrity of the PIPELINE SYSTEM; control or prevent serious or irreparable damage to the environment (including but not limited to fish and wildlife populations or their habitats); or remove hazards to public health and safety. Any modification of facilities not yet under construction, ordered in connection with the issuance of a NOTICE TO PROCEED, shall be made without liability or expense to the United States.

1.3.7. The absence of any comment by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER on any plan, design, specification, or other document which may be filed by the COMPANY with the FEDERAL INSPECTOR or the AUTHORIZED OFFICER shall not be deemed to represent in any way whatever any assent to, approval of, or concurrence in such plan, design, specification, or other document, or of any action proposed therein. Nevertheless, on any matter necessary or related to the construction and initial operation of the PIPELINE SYSTEM which requires action by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER there is an obligation to act expeditiously in compliance with Subsections 9(a) and (b) of the Alaska Natural Gas Transportation Act, 15 U.S.C. § 719g. Any written approval or instruction by the FEDERAL INSPECTOR or the AUTHORIZED OFFICER may be relied upon by the COMPANY unless and until rescinded in writing.

1.3.8. The FEDERAL INSPECTOR shall have a continuing right of access to any part of the PIPELINE SYSTEM at any time for inspection or monitoring and for any other purpose or reason that is reasonably consistent with his responsibilities. This right may be exercised by the FEDERAL INSPECTOR and his agents and representatives designated in writing; and contractors and subcontractors of the FEDERAL INSPECTOR performing work related to the PIPELINE SYSTEM. The FEDERAL INSPECTOR shall prepare procedures to implement this Stipulation, including reasonable advance notification where practicable.

1.3.9. No order or notice given to the COMPANY on behalf of the FEDERAL INSPECTOR shall be effective as to the COMPANY unless prior written notice of the delegation of authority to issue such order or notice has been given to the COMPANY.

1.3.10. Prior to beginning work on any aspect of the Alaska Natural Gas Transportation System, the COMPANY will furnish all appropriate supervisory-level employees with copies of these Stipulations and will explain the limitations imposed by these Stipulations.

1.4. COMMUNICATIONS

1.4.1. During the period of construction and initial operation of the PIPELINE SYSTEM, all formal written communications between the COMPANY and the AGENCY of the AUTHORIZED OFFICER involving construction, operation, maintenance, or termination of the PIPELINE SYSTEM shall be transmitted through the FEDERAL INSPECTOR or as he may direct. However, documents required by statute or

AGENCY regulation to be filed with the AGENCY shall be filed as so required, provided that a copy (or copies) thereof is concurrently filed with the FEDERAL INSPECTOR.

1.4.2. Any written notice or communication, including any telegram, relating to any subject, addressed to the FEDERAL INSPECTOR from the COMPANY, shall be deemed to have been delivered to and received by the FEDERAL INSPECTOR when the notice or communication has been delivered either by messenger during normal business hours, or by means of registered or certified United States mail, postage prepaid, return receipt requested, to the Office of the FEDERAL INSPECTOR.

1.4.3. Any written order, notice, or other written communication, including any telegram, relating to any subject, that is addressed to the COMPANY from the FEDERAL INSPECTOR shall be deemed to have been delivered to and received by the COMPANY when the order, notice or other communication has been delivered either by messenger during normal business hours, or by means of registered or certified United States mail, postage prepaid, return receipt requested to the office of the representative designated by the COMPANY pursuant to Stipulation 1.3.4.

1.4.4. All orders or approvals of the FEDERAL INSPECTOR shall be in writing, but in emergencies may be issued orally, with subsequent confirmation in writing as soon as possible thereafter, but not later than 24 hours.

1.5. SUMMARY NETWORK ANALYSIS DIAGRAMS

1.5.1. Prior to the initiation of construction, the COMPANY shall submit a summary network analysis diagram for the project to the FEDERAL INSPECTOR for review and approval. As mutually agreed to by the COMPANY and the FEDERAL INSPECTOR, the summary network analysis diagram shall include all engineering and construction-related activities and contingencies which reasonably may be anticipated in connection with the project. The summary network analysis diagram shall include or address:

(1) data collection activities;
(2) submittal and approval activities;
(3) construction and post construction activities;
(4) schedule control techniques; and
(5) other pertinent data.

The summary network analysis diagram shall be prepared employing techniques normal to the industry in sufficient detail and scope to permit the FEDERAL INSPECTOR to determine if the management approach shown or inferred by the network analysis will facilitate the cost-effective, environmentally sound and timely construction of the project.

1.5.2. The summary network analysis diagram shall be initially prepared and updated to reflect major changes at intervals mutually agreeable to the COMPANY and the FEDERAL INSPECTOR.

1.6. PLANS AND PROGRAMS

1.6.1. The COMPANY shall submit to the FEDERAL INSPECTOR comprehensive plans and/or programs which shall include but not be limited to the following:

1. Environmental briefings
2. OIL and HAZARDOUS SUBSTANCES discharges
3. Air quality
4. Pesticides, herbicides, chemicals
5. Solid waste management
6. Liquid waste management
7. Erosion control
8. Stream crossings
9. Material extraction
10. Overburden and excess material disposal
11. Clearing
12. Visual Resources
13. Blasting
14. Restoration
15. PIPELINE contingency
16. Quality assurance/quality control
17. Surveillance and maintenance
18. Cultural resource preservation
19. Fire control
20. WETLAND construction

These plans and programs may be combined as appropriate.

1.6.2. The plans and programs specified in Stipulation 1.6.1. shall be approved in writing by the FEDERAL INSPECTOR and shall be complied with by the COMPANY. The COMPANY and the FEDERAL INSPECTOR shall agree to the scope and content of the required plans and the schedule for submission and approval of the required plans and programs.

1.6.3. The COMPANY shall furnish detailed and/or site-specific plans or programs to the FEDERAL INSPECTOR as needed as the basis for requesting a NOTICE TO PROCEED in accordance with Stipulation 1.7.

1.7. NOTICE TO PROCEED

1.7.1. The COMPANY shall not initiate any field activity on FEDERAL LANDS pursuant to the authorization of which these Stipulations are a part without the prior specific permission of the FEDERAL INSPECTOR. Such permission for construction activities shall be given solely by a written NOTICE TO PROCEED issued by the FEDERAL INSPECTOR. Any NOTICE TO PROCEED shall permit field activities only as therein expressly stated and only for the particular field activities therein described. A NOTICE TO PROCEED may contain such site-specific terms and conditions as the FEDERAL INSPECTOR deems necessary.

1.7.2. The FEDERAL INSPECTOR shall not issue a NOTICE TO PROCEED until he has approved the on-the-ground locations of all RELATED FACILITIES and temporary use areas.

1.7.3. Each application for a NOTICE TO PROCEED shall be supported by:

(1) A FINAL DESIGN or plan for that portion of the project with computations supporting the design.

(2) All applicable reports and results of environmental studies.

(3) All data necessary to demonstrate compliance with all Stipulations related to the particular activity.

(4) A detailed network analysis diagram for the CONSTRUCTION SEGMENT or SEGMENTS, including: the COMPANY'S work schedules, applicable permits required by State and Federal agencies, design and review periods, data collection activities, and construction sequencing. The detailed network analysis diagram shall be updated as required to reflect current status of the project.

(5) A quality assurance program as specified in Stipulation 1.8.

(6) A map or maps, prepared in such manner as shall be acceptable to the FEDERAL INSPECTOR, depicting the proposed location of: (1) the boundaries of all associated temporary use areas, and (2) all improvements, buried or aboveground, that are to be constructed. The FEDERAL INSPECTOR shall not issue a NOTICE TO PROCEED until all relevant locations on the ground have been approved by the FEDERAL INSPECTOR and temporary boundary markers have been set by the COMPANY to the satisfaction of the FEDERAL INSPECTOR.

(7) Justification statements for all proposed design features or activities which may not be in conformance with these Stipulations.

(8) Detailed and/or site specific plans as specified in Stipulation 1.6.3.

1.7.4. Prior to submission of any applications for NOTICES TO PROCEED, the COMPANY and the FEDERAL INSPECTOR shall agree to a schedule for the submission, review and approval of such applications and on the scope of information to be contained therein. The schedule shall allow the FEDERAL INSPECTOR at least 120 days for review of each complete application for a NOTICE TO PROCEED. The schedule may be revised by mutual agreement, if necessary.

1.7.5. The FEDERAL INSPECTOR shall review each application for a NOTICE TO PROCEED and all data submitted in connection therewith in accordance with schedules as agreed upon pursuant to Stipulation 1.7.4.

1.7.6. The FEDERAL INSPECTOR shall issue a NOTICE TO PROCEED only when, in his judgment, applicable FINAL DESIGNS and other submissions required by Stipulations 1.6.1., 1.6.3. and 1.7.3. conform to these Stipulations.

1.7.7. By written order, following appropriate consultation with the COMPANY, the FEDERAL INSPECTOR may revoke or suspend in whole or in part any NOTICE TO PROCEED which has been issued when in his judgment unforeseen conditions later arising require alterations in the NOTICE TO PROCEED in order to: protect or maintain stability of foundation and earth materials; protect or maintain integrity of the PIPELINE SYSTEM; control or prevent serious or irreparable damage to the environment (including but not limited to fish or wildlife populations or their habitats); or remove hazards to public health and safety. The FEDERAL INSPECTOR shall expeditiously follow his revocation or suspension order with a more detailed written statement of the reason for the action.

1.8. QUALITY ASSURANCE AND CONTROL

1.8.1. The quality assurance and quality control programs shall be comprehensive and designed to assure that the applicable requirements of 49 CFR, Part 192 and environmental and technical Stipulations will be complied with throughout all phases of construction, operation, maintenance and termination of the PIPELINE SYSTEM. The COMPANY shall provide for inspection of PIPELINE SYSTEM construction to ensure compliance with the approved design specifications, and the plans required under Stipulation 1.6.

1.8.2. At a minimum, the following shall be included in the quality assurance program:

1.8.2.1. Procedures for the detection and prompt abatement of any actual or potential condition that is susceptible to abatement by the COMPANY, that could reasonably be expected to arise out of, or affect adversely, construction, operation, maintenance, or termination of all or any part of the PIPELINE SYSTEM, and that at any time may cause or threaten to cause (a) a hazard to the safety of workers or to public health or safety, including but not limited to personal injury or loss of life of any persons, or (b) harm or damage to the environment, including but not limited to areas of vegetation or timber, fish or other wildlife populations or their habitats, or any other natural resource.

1.8.2.2. Procedures for the repair and replacement of improved or tangible property and the rehabilitation of natural resources (including but not limited to REVEGETATION, restocking fish or other wildlife populations, and reestablishing their habitats) that shall be seriously damaged or destroyed if the immediate cause of the damage or destruction arose in connection with, or results from, construction, operation, maintenance, or termination of all or any part of the PIPELINE SYSTEM.

1.8.2.3. Methods and procedures for achieving component and subsystems quality through proper design and specification.

1.8.2.4. Methods for incorporating quality assurance and quality control criteria in the selection of the COMPANY'S contractors, subcontractors, and in the contract purchases of materials and services.

1.8.2.5. A plan for collecting, recording, storing, retrieving and reviewing data to assure that quality has been attained, including procedures for maintaining adequate records of inspections, identification of deviations and completion of corrective actions.

1.8.2.6. Specific methods of detecting deviations from designs, plans, regulations, specifications, stipulations and permits, as the basis for initiating corrective action to preclude or rectify the hazards, harm or damage referenced in Sections 1.8.2.1. and 1.8.2.2. of these Stipulations.

1.8.2.7. Inspection, test and acceptance of components, sub-systems and sub-assemblies.

1.8.2.8. A plan for conducting surveys and field inspections of all facilities, processes and procedures of the COMPANY, its contractors, subcontractors, vendors and suppliers critical to the achievement of quality.

1.8.3. The COMPANY shall submit reports to the FEDERAL INSPECTOR to demonstrate that it is complying with the quality assurance and control program as approved. Such reports shall be submitted quarterly unless otherwise requested by the FEDERAL INSPECTOR.

1.9. CONDUCT OF OPERATIONS

1.9.1. The COMPANY shall perform PIPELINE SYSTEM operations in a safe and workmanlike manner so as to ensure protection of the environment and the safety and integrity of the PIPELINE and shall at all times employ qualified personnel and maintain equipment sufficient for that purpose. The COMPANY shall notify the FEDERAL INSPECTOR of any condition, problem, malfunction, or other occurrence which in any way threatens the safety or integrity of the PIPELINE, or serious or irreparable harm to the environment.

1.10. SURVEILLANCE AND MAINTENANCE

1.10.1. During the construction, operation, maintenance and termination phases of the PIPELINE SYSTEM, the COMPANY shall conduct a surveillance and maintenance program in accordance with 49 CFR, Parts 191 and 192. At minimum, this program shall, with respect to the COMPANY'S activities, be designed to: (1) provide for public health and safety; (2) control or prevent damage to natural resources; (3) control or prevent erosion; (4) maintain PIPELINE integrity; and (5) control or prevent damage to public and private property.

1.10.2. The COMPANY shall maintain complete and up-to-date records on construction, operation, maintenance, and termination activities performed in connection with the PIPELINE SYSTEM. Such records shall include surveillance data, leak and break records, necessary operational data, modification records, and such other data as may be required by 49 CFR, Parts 191 and 192 and other applicable Federal laws and regulations.

1.11. HEALTH AND SAFETY

1.11.1 The COMPANY shall take all reasonable measures necessary to protect the health and safety of all persons directly affected by activities performed by the COMPANY in the general vicinity of the right-of-way or permit area in connection with construction, operation, maintenance or termination of the PIPELINE SYSTEM, and shall immediately abate any health or safety hazards. The COMPANY shall notify the FEDERAL INSPECTOR of accidents which occur in connection with such activities in frequency and detail identical to OSHA reporting requirements.

1.12. PUBLIC AND PRIVATE IMPROVEMENTS

1.12.1. The COMPANY shall provide reasonable protection to existing public or private improvements on FEDERAL LANDS which may be adversely affected by its activities during construction, operation, maintenance, and termination of the PIPELINE SYSTEM. If it is determined that the COMPANY has caused damage to such public and private improvements, and if the owner so requires, then the COMPANY shall promptly repair the property to a condition which is satisfactory to the owner but not to exceed its condition prior to damage.

1.13. SURVEY MONUMENTS

1.13.1. The COMPANY shall mark and protect all survey monuments, corners or accessories encountered during construction, operation, maintenance, and termination of the PIPELINE SYSTEM. These monuments are not to be disturbed; however, if such a disturbance occurs, the FEDERAL INSPECTOR shall be immediately notified thereof in writing.

1.14. FIRE PREVENTION AND SUPPRESSION

1.14.1. The COMPANY shall promptly notify the FEDERAL INSPECTOR of any fires on, or which may threaten any portion of, the PIPELINE SYSTEM and shall take all measures necessary or appropriate for the prevention and suppression of fires in accordance with applicable law. The COMPANY shall comply with the instructions and directions of the FEDERAL INSPECTOR concerning the use, prevention and suppression of fires on FEDERAL LANDS. Use of open fires in connection with construction, operation, maintenance and termination of the PIPELINE SYSTEM is prohibited on FEDERAL LANDS unless authorized in writing by the FEDERAL INSPECTOR.

1.15. ELECTRONICALLY OPERATED DEVICES

1.15.1. The COMPANY shall, as necessary, screen, filter, or otherwise suppress any electronically operated devices installed as part of the PIPELINE SYSTEM which are capable of producing electromagnetic interference radiations so that such devices will not adversely affect the functioning of existing communications systems or navigational aids. In the event that structures such as towers or buildings are to be erected as parts of the PIPELINE SYSTEM, their positioning shall be such that they will not obstruct radiation patterns of existing line-of-sight communications systems, navigational aids, or similar systems.

1.16. TERMINATION OF AUTHORIZATIONS

1.16.1. Upon revocation or termination of the authorization of which these Stipulations are a part, the COMPANY shall remove all improvements and equipment from the FEDERAL LANDS, unless otherwise approved in writing by the FEDERAL INSPECTOR, and provided that restoration has been completed to the satisfaction of the FEDERAL INSPECTOR. Procedures to abandon a buried PIPELINE shall be in accordance with the requirements specified in 49 CFR, Part 192, Section 727.

1.17. STOP ORDERS

1.17.1. Designated field representatives of the FEDERAL INSPECTOR may issue a stop order at the site of the activity to any designated representative of the COMPANY, and the COMPANY shall cease the activity immediately. Except in emergencies, all stop orders shall be in writing. The FEDERAL INSPECTOR shall maintain a record of all stop orders, the officer who issued the order, the time and date of the order, and the reason for issuance. Stop orders shall automatically expire at the expiration of 24 hours from time of issuance unless extended by written order of the FEDERAL INSPECTOR. It shall be the policy of the FEDERAL INSPECTOR to issue stop orders only when: there is a violation of these Stipulations, permit conditions or a NOTICE TO PROCEED; or mitigating or corrective measures cannot be identified or agreed on, after consultation with the responsible field personnel of the COMPANY, and immediately implemented.

2. ENVIRONMENTAL

2.1. ENVIRONMENTAL BRIEFINGS

2.1.1. Prior to, and during, construction, operation, maintenance, and termination of the PIPELINE SYSTEM, the COMPANY shall develop and provide environmental and other pertinent briefings for supervisory and field personnel directly related to the project and for Federal field representatives. The environmental briefing program must be submitted for review to, and approved by, the FEDERAL INSPECTOR prior to implementation.

2.2. POLLUTION CONTROL

2.2.1. GENERAL

2.2.1.1. The COMPANY shall construct, operate, maintain and terminate the PIPELINE SYSTEM in a manner that will avoid or minimize degradation of air, land, and water quality. The COMPANY shall comply with applicable air and water quality standards and Federal laws and regulations and permit requirements relating to pollution control or prevention.

2.2.2. WATER AND LAND POLLUTION

2.2.2.1. The COMPANY shall comply with applicable State Water Quality Standards as approved by the Environmental Protection Agency's National Pollutant Discharge Elimination System discharge permit program.

2.2.2.2. The COMPANY shall not operate construction equipment in lakes, WETLANDS, streams, rivers, ditches or canals except in accordance with approved plans required by Stipulation 1.6.

2.2.2.3. The temperature of natural surface or ground waters shall not be changed significantly by any construction-related activities unless approved in writing by the FEDERAL INSPECTOR.

2.2.3. PESTICIDES, HERBICIDES, AND OTHER CHEMICALS

2.2.3.1. The COMPANY shall use only nonpersistent and immobile types of pesticides, herbicides, and other chemicals. Only those pesticides and herbicides registered by the Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act shall be applied. Applications of pesticides and herbicides shall be in accordance with applicable regulations of the State and label directions approved by the U.S. Environmental Protection Agency. The pesticides, herbicides, and chemicals plan required in Stipulation 1.6. shall address such general and site-specific procedures and restrictions as are necessary to assure proper application of pesticides, herbicides and such other chemicals as may be specifically delineated in consultation with the FEDERAL INSPECTOR and concerned Federal agencies.

2.2.4. SANITATION AND WASTE DISPOSAL

2.2.4.1. "WASTE" means all discarded matter other than construction spoil. It includes, but is not limited to, human waste, trash, garbage, refuse, OIL drums, petroleum products, ashes, and equipment.

2.2.4.2. All WASTE generated in construction, operation, maintenance, and termination of the PIPELINE SYSTEM shall be removed or otherwise disposed of in accordance with the approved plan required under Stipulation 1.6. All applicable Federal and State WASTE disposal requirements shall be met by the COMPANY.

2.3. BUFFER STRIPS

2.3.1. No construction activity in connection with the PIPELINE SYSTEM shall be conducted within one-half (1/2) mile of any officially designated Federal, State, or municipal park, wildlife refuge, research natural area, recreation area, recreation site, or any registered National Historic Site or national landmark, unless such activity is approved in writing by the FEDERAL INSPECTOR. However, implementation of this Stipulation shall in no way compel a change in the basic nature and general route of the transportation system described in the President's Decision.

2.3.2. Where the PIPELINE crosses State highways, vegetation native to the adjacent areas shall be established over disturbed areas in accordance with the approved restoration plan required in Stipulation 1.6.

2.4. EROSION AND SEDIMENTATION CONTROL

2.4.1. GENERAL

2.4.1.1. The COMPANY shall perform all PIPELINE SYSTEM construction, operation, maintenance, and termination activities so as to minimize disturbance to all surface areas.

2.4.1.2. The design of the PIPELINE SYSTEM shall provide for the control of erosion and the reduction of sediment production, transport, and deposit.

2.4.1.3. Erosion control measures, including structures if necessary, shall be implemented to the satisfaction of the FEDERAL INSPECTOR, in accordance with the plans approved under Stipulation 1.6.

2.4.1.4. Surface materials suitable for use in restoration taken from disturbed areas shall be stockpiled and utilized during restoration in accordance with the plans required by Stipulation 1.6. Erosion and sediment control practices utilized shall be determined by the needs of specific sites and, as appropriate, shall include, but not be limited to REVEGETATION, mulching, and placement of mat binders, soil binders, rock or gravel blankets or structures.

2.4.2. CROSSING OF STREAMS, RIVERS, OR FLOODPLAINS

2.4.2.1. The COMPANY shall minimize erosion and sedimentation at streams, WETLANDS, and river crossings and those parts of the PIPELINE SYSTEM within floodplains as provided in Stipulation 3.4.

2.4.2.2. Temporary access over streambanks prior to and following trenching shall be made through use of fill ramps rather than by cutting through streambanks, unless otherwise approved in writing by the FEDERAL INSPECTOR. The COMPANY shall remove such ramps upon termination of seasonal or final use. Ramp materials shall be disposed of in a manner approved in writing by the FEDERAL INSPECTOR.

2.4.2.3. Excavated materials shall not be stockpiled in rivers, streams, or floodplains, unless approved in writing by the FEDERAL INSPECTOR. In WETLANDS, stockpiling shall be done in accordance with the plan required by Stipulation 1.6.

2.4.3. EXCAVATED MATERIAL

2.4.3.1. Excavated material in excess of that required to backfill around any structure, including the pipe, shall be disposed of in accordance with the approved overburden and excess material disposal plan required in Stipulation 1.6.

2.5. FISH AND WILDLIFE PROTECTION

2.5.1. The COMPANY shall design, construct, operate, maintain, and terminate the PIPELINE SYSTEM so as to assure free passage and movement of fish, except for such temporary blockages as the FEDERAL INSPECTOR may approve. The proposed designs and construction plans shall be submitted to the FEDERAL INSPECTOR for approval and will include the time and place that temporary blockages will occur because of instream activities.

2.5.2. Pump intakes shall be screened to prevent harm to fish, in accordance with screening criteria set by Federal or State fish and wildlife agencies. If such criteria are not available, screening specifications shall be approved by the FEDERAL INSPECTOR.

2.5.3. When abandoned, water diversion structures shall be removed or plugged and stabilized.

2.5.4. If new material sites are approved adjacent to or in lakes, rivers, streams or WETLANDS, the FEDERAL INSPECTOR may require the COMPANY to construct levees, berms, or other suitable means to protect fish and fish passage and to prevent or minimize siltation.

2.5.5. FISH SPAWNING BEDS, FISH REARING AREAS, AND OVERWINTERING AREAS

2.5.5.1. "FISH SPAWNING BEDS" means those areas where anadromous and resident fish deposit their eggs.

2.5.5.2. "FISH REARING AREAS" means those areas inhabited by fish during all life stages including hatching and maturity.

2.5.5.3. "OVERWINTERING AREAS" means those areas inhabited by fish between freezeup and breakup.

2.5.5.4. The COMPANY shall avoid disturbances to those FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS designated by the FEDERAL INSPECTOR; however, where disturbances cannot be avoided, proposed modifications and appropriate mitigation measures shall be designed by the COMPANY and approved in writing by the FEDERAL INSPECTOR.

2.5.5.5. The COMPANY shall protect FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS from sediment where soil material is expected to be suspended in water as a result of construction activities. Settling basins or other sediment control structures shall be constructed to intercept silt before it reaches rivers, streams, lakes, or WETLANDS, unless otherwise approved by the FEDERAL INSPECTOR in accordance with Stipulation 1.6.

2.5.5.6. The COMPANY shall comply with any site-specific terms and conditions imposed by the FEDERAL INSPECTOR to protect FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS. The COMPANY shall repair damage to such areas caused by construction, operation, maintenance, or termination of the PIPELINE SYSTEM to the satisfaction of the FEDERAL INSPECTOR as stated in writing.

2.5.5.7. The COMPANY shall not take water from FISH SPAWNING BEDS, FISH REARING AREAS and OVERWINTERING AREAS or waters that directly replenish those areas during critical periods that will de defined by the FEDERAL INSPECTOR, unless otherwise approved by the FEDERAL INSPECTOR in accordance with Stipulation 2.5.6.

2.5.6. ZONES OF RESTRICTED ACTIVITIES

2.5.6.1. The COMPANY'S activities in connection with construction, operation, maintenance, and termination of the PIPELINE SYSTEM in key fish and wildlife areas may be restricted by the FEDERAL INSPECTOR during periods of fish and wildlife breeding, nesting, spawning, lambing and calving activity, overwintering, and during major migrations of fish and wildlife. The COMPANY shall include among the plans submitted pursuant to Stipulation 1.6. a list of areas where such restrictions may be required, together with anticipated dates of restriction, which shall be developed in consultation with concerned agencies.

2.6. PURCHASE OF MATERIALS

2.6.1. If the COMPANY requires mineral materials from public lands of the United States, the COMPANY shall make application to purchase such materials in accordance with 43 CFR, Part 3610 and shall submit a mining plan in accordance with 43 CFR, Part 23. Application to purchase merchantable timber shall be made under applicable regulations.

2.7. CLEARING PROCEDURES

2.7.1. Slash, vegetation, nonmerchantable timber, overburden, and other materials removed during clearing operations shall be disposed of in accordance with approved plans required under Stipulation 1.6. All debris resulting from clearing operations and construction that may block streamflow, delay fish passage, contribute to flood damage, or result in streambed scour or erosion shall be removed within 48 hours.

2.8. DISTURBANCE OR USE OF NATURAL WATERS

2.8.1. All activities of the COMPANY in connection with the PIPELINE SYSTEM that may create new lakes, drain existing lakes, significantly divert natural drainages and surface runoff, permanently alter stream or ground water hydraulics, disturb WETLANDS, or disturb signficant areas of streambeds, shall be avoided unless such activities along with necessary mitigation measures are approved in writing by the FEDERAL INSPECTOR.

2.8.2. The COMPANY shall not develop wells or utilize surface water sources on FEDERAL LANDS for the construction, operation, maintenance, or termination of the PIPELINE SYSTEM without the prior written approval of the FEDERAL INSPECTOR.

2.9. OFF RIGHT-OF-WAY TRAFFIC

2.9.1. The COMPANY shall not operate mobile ground equipment on FEDERAL LANDS off the right-of-way, roads, or authorized areas unless approved in writing by the FEDERAL INSPECTOR, or when necessary to prevent immediate harm to any person.

2.10. VISUAL RESOURCES

2.10.1. The COMPANY shall consider visual resource values in planning, construction, and operation of the PIPELINE SYSTEM. The COMPANY shall prepare a visual resource plan for the PIPELINE SYSTEM in accordance with Stipulation 1.6.

2.11. USE OF EXPLOSIVES

2.11.1. The COMPANY shall submit a plan for storage and use of explosives on FEDERAL LANDS including, but not limited to, blasting techniques and timing and location of blasting, to the FEDERAL INSPECTOR for approval in accordance with Stipulation 1.6.

2.11.2. No blasting shall be done under water or within one quarter (1/4) mile of streams or lakes with identified fisheries or wildlife resources except as approved in the blasting plan required under Stipulation 1.6.

2.12. RESTORATION

2.12.1. Upon completion of use, the COMPANY shall restore all areas of FEDERAL LANDS disturbed by it, in accordance with schedules approved by the FEDERAL INSPECTOR and approved plans required under Stipulation 1.6. Restoration performed by the COMPANY shall be approved in writing by the FEDERAL INSPECTOR.

2.12.2. Restoration includes, where appropriate, erosion and sediment control, REVEGETATION, reestablishment of native species, and stabilization. Unless otherwise directed by the FEDERAL INSPECTOR, all disturbed areas of

FEDERAL LANDS shall be put-to-bed. "Put-to-bed" means that the areas shall be left in such stabilized condition that erosion will be minimized through the use of adequately designed and constructed waterbars, REVEGETATION and chemical surface control; that culverts and bridges shall be removed, unless otherwise approved in writing by the FEDERAL INSPECTOR, and slopes restored by the COMPANY in a manner satisfactory to the FEDERAL INSPECTOR and that use of such areas by the COMPANY shall cease.

2.12.3. REVEGETATION of disturbed areas of FEDERAL LANDS shall be accomplished as soon as practicable in accordance with plans required under Stipulation 1.6. and approved by the FEDERAL INSPECTOR. The results of REVEGETATION must be satisfactory to the FEDERAL INSPECTOR as stated in writing. "REVEGETATION" means the establishment of plant cover on disturbed lands through techniques including, but not limited to, seedbed preparation, seeding, planting, fertilizing, mulching, and watering.

2.12.4. The COMPANY shall dispose of all materials from ROADS, haul ramps, berms, dikes, and other earthen structures it has placed on FEDERAL LANDS in accordance with approved restoration plans.

2.12.5. Pending restoration of a disturbed area of FEDERAL LANDS, the COMPANY shall maintain the area in a stabilized condition satisfactory to the FEDERAL INSPECTOR.

2.12.6. Upon completion of restoration of an area of FEDERAL LANDS, the COMPANY shall remove all equipment and supplies from that area in accordance with approved restoration plans.

2.12.7. The COMPANY shall maintain all restored areas of FEDERAL LANDS in accordance with approved plans required under Stipulation 1.6.

2.13. REPORTING, PREVENTION, CONTROL, CLEANUP AND DISPOSAL OF OIL AND HAZARDOUS SUBSTANCES DISCHARGES

2.13.1. The COMPANY shall give notice in accordance with applicable law of any spill, leakage, or discharge of OIL or other HAZARDOUS SUBSTANCES in connection with the construction, operation, maintenance or termination of the PIPELINE SYSTEM to (1) the FEDERAL INSPECTOR and (2) such other Federal and State officials as are required by law to be given such notice. Any oral notice shall be confirmed in writing as soon as possible.

2.13.2. The COMPANY shall submit an OIL and HAZARDOUS SUBSTANCE prevention, control, cleanup and disposal plan to the FEDERAL INSPECTOR in accordance with Stipulation 1.6. The plan shall conform to this Stipulation and shall outline all areas where OIL and/or HAZARDOUS SUBSTANCES are stored, utilized, transported or distributed. The plan shall include fuel distribution systems, storage and containment, containerized products, leak detection systems, handling procedures, training programs, provisions for collection, storage and ultimate disposal of waste OIL, cleanup methods, disposal sites and other criteria as may be required under Stipulation 1.6. The plan shall be approved in writing by the FEDERAL INSPECTOR and the COMPANY shall demonstrate its capability and readiness to execute the plan.

2.14. PIPELINE CONTINGENCY PLAN

2.14.1. The COMPANY shall submit a PIPELINE contingency plan to the FEDERAL INSPECTOR in accordance with Stipulation 1.6. The plan shall conform to this Stipulation and shall outline the steps to be taken in the event of a break, leak or explosion in the PIPELINE. The plan shall be approved in writing by the FEDERAL INSPECTOR prior to PIPELINE startup and the COMPANY shall demonstrate its capability and readiness to execute the plan.

2.14.2. The COMPANY shall, as appropriate, update the plan and methods of implementation thereof, which shall be submitted annually to the FEDERAL INSPECTOR for his written approval.

2.15. CULTURAL RESOURCES

2.15.1. The COMPANY shall undertake the affirmative responsibility to identify, protect and preserve cultural, historic, prehistoric and archeological resources that may be impacted by the PIPELINE SYSTEM consistent with the National Historic Preservation Act of 1966, as amended, and the implementing procedures of the Advisory Council on Historic Preservation, 36 CFR Part 800. This responsibility will be conducted in a manner consistent with the terms of a Memorandum of Agreement, under Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. § 470f, 80 Stat. 915, between the Advisory Council on Historic Preservation, the State Historic Preservation Officer, and appropriate Federal and State officials. The agreement will include a plan for complying with these and other statutes and regulations applicable to historic and prehistoric resources protection. Additional protection responsibilities established by the Archeological and Historic Preservation Act shall be implemented in the manner provided by the Statement of Program Approach for this Act as published at 44 Fed. Reg. 18117 et seq., March 26, 1979.

3. TECHNICAL

3.1. PIPELINE SYSTEM STANDARDS

3.1.1. GENERAL STANDARDS

3.1.1.1. All design, material and construction, operation, maintenance, and termination practices employed in the PIPELINE SYSTEM shall be in accordance with safe and proven engineering practice and, with regard to the PIPELINE, shall meet or exceed the Department of Transportation Regulations, 49 CFR, Parts 191, "Reports of Leaks," and 192, "Transportation of Natural and Other Gas by Pipelines: Minimum Federal Safety Standards."

3.1.2. SPECIAL STANDARDS

3.1.2.1. The PIPELINE design shall provide for sectionalizing block valves, protective devices to prevent overpressuring, and other safety devices installed at locations required by Federal safety standards.

3.1.2.2. The COMPANY shall inspect the main line girth welds in accordance with 49 CFR, Part 192, Subpart E, using radiographic or other nondestructive inspection techniques to assure compliance with defect acceptability standards.

3.1.2.3. The PIPELINE design in environmentally sensitive areas shall provide for minimum maintenance needs to reduce re-entry requirements.

3.1.3. STANDARDS FOR ROADS

3.1.3.1. The COMPANY shall submit a layout of each proposed ROAD for approval by the FEDERAL INSPECTOR in accordance with Stipulation 1.7.

3.1.3.2. ROADS shall be constructed to standards suitable for safe operation of equipment at the travel speeds proposed by the COMPANY.

3.2. EARTHQUAKES AND FAULT DISPLACEMENTS

3.2.1. EARTHQUAKES

3.2.1.1. The PIPELINE SYSTEM shall be designed to withstand, without rupture, the maximum probable earthquake that could occur based upon consideration of regional tectonics within existing geologic framework, and in accordance with 49 CFR, Part 192.

3.2.1.2. The COMPANY shall provide the FEDERAL INSPECTOR data from existing monitoring systems maintained by the United States Geological Survey, the California Division of Mines and Geology, and the University of California. A determination by the FEDERAL INSPECTOR will be made on what other systems are necessary to ensure there are adequate procedures for safe shutdown of the PIPELINE under severe seismic conditions.

3.2.2. FAULT DISPLACEMENTS

3.2.2.1. Prior to applying for a NOTICE TO PROCEEED for any CONSTRUCTION SEGMENT, the COMPANY shall satisfy the FEDERAL INSPECTOR that all recognizable or reasonably inferred faults or fault zones along the alignment within the segment have been identified and delineated and any major risk of PIPELINE SYSTEM damage resulting from fault movement and ground deformation has been adequately assessed and provided for in the design of the PIPELINE for the segment. Evaluation of said risk shall be based on geologic, geomorphic, geodetic, seismic, and other appropriate scientific evidence of past or present fault behavior and shall be compatible with the design earthquakes and with observed relationships between earthquake magnitude and extent and amount of deformation and fault slip within the fault zone.

3.2.2.2. Minimum design criteria for a segment of the PIPELINE traversing a fault zone that is interpreted by the FEDERAL INSPECTOR as active shall be that the PIPELINE resist failure resulting in line rupture from maximum anticipated horizontal and/or vertical displacement in the foundation material anywhere within the fault zone during the life of the PIPELINE, unless otherwise approved by the FEDERAL INSPECTOR.

3.3. SLOPE STABILITY

3.3.1. The PIPELINE design, based upon such detailed field investigations and analyses as may be necessary, shall provide measures to prevent the occurrence of, or protect the PIPELINE against, the effects of mass movement.

3.4. STREAM AND FLOODPLAIN CROSSINGS AND EROSION

3.4.1. GENERAL

3.4.1.1. The PIPELINE SYSTEM shall be designed so as to include, but not be limited to, consideration of aquifer development, erosion and sedimentation, restriction of natural meander, or alteration of the physical or chemical nature of the water body.

3.4.1.2. For each region through which the PIPELINE passes, the PIPELINE shall be designed to withstand or accommodate the effects (including runoff, stream and floodplain erosion, meander cutoffs, and lateral migration) of those meteorologic, hydrologic (including surface and subsurface) and hydraulic conditions considered reasonably probable for the region. For stream crossings and portions of the PIPELINE within the floodplain, the following standards shall apply to such PIPELINE design:

3.4.1.2.1. The design flood shall be based on the concept of the "Standard Project Flood" as defined in Corps of Engineers Bulletin 52-8, Part 1.

3.4.1.2.2. The depth of channel scour shall be established by appropriate field investigations and theoretical calculations using those combinations of water velocity and depth that yield the maximum value. At the point of maximum scour, the cover over the pipe shall be at least twenty (20) percent of the computed scour, but not less than four (4) feet.

3.4.1.2.3. For overhead crossings, comparable analysis shall be made to ensure that support structures are adequately protected from the effects of scour, channel migration, undercutting, and other external and internal loads.

3.4.1.2.4. In floodplains, appropriate construction procedures shall be used wherever there is potential channelization along the pipe.

3.4.1.2.5. Method of constructing stream crossings, including excavation and backfill of the pipe trench near and through streambanks, shall be in accordance with the stream crossing plan required in Stipulation 1.6.

3.4.1.3. Low water crossings (fords across streams or rivers where any mobile ground equipment is moved on the streambed) shall be constructed, maintained, and restored in accordance with plans approved by the FEDERAL INSPECTOR.

3.4.1.4. The pipe trench excavation shall stop an adequate distance from the water crossing to leave a protective plug (unexcavated material) at each bank. These plugs shall not be removed until absolutely necessary. The trench shall be backfilled with stable material as soon as pipe is laid.

3.4.2. EROSION

3.4.2.1. Where necessary because of outfall erosion, settling basins shall be constructed at the outflow end of culverts. To prevent erosion, the pool sides shall be stabilized by appropriate methods, in accordance with the erosion control plan required under Stipulation 1.6.

3.4.2.2. Slopes of cuts through streambanks shall be designed and constructed to minimize erosion and prevent slides.

3.4.2.3. Erosion control procedures shall accommodate and be based on the maximum flow which may be produced from rain or snow melt or a combination of the two reasonably characteristic of the region.

3.5. PIPELINE CORROSION

3.5.1. The COMPANY shall provide detailed information on planning for a corrosion resistant design and methods for early detection of corrosion. This shall include consideration of: (1) pipeline material and welding techniques to be used and information on their particular suitability for the environment involved; (2) details on the external pipe protection to be provided (coating, wrapping, etc.), including information on variations on the coating process to cope with variations in environmental factors along the PIPELINE route; (3) plans for cathodic protection including details of impressed current sources and controls to ensure continuous maintenance of adequate protection over the entire surface of the pipe; (4) details of plans for monitoring cathodic protection; (5) provision for periodic intensive surveys of trouble spots, regular preventative maintenance surveys, and special provisions for abnormal potential patterns especially those resulting from other pipelines or cables; and (6) information on any precautions required to prevent internal corrosion of the PIPELINE.

3.6. OPERATION AND MAINTENANCE

3.6.1. Operation and maintenance activities in connection with the PIPELINE SYSTEM shall be conducted so as to avoid or minimize thermal and other environmental changes and to provide maximum protection to fish and wildlife and their habitat.

3.6.2 Plans, procedures, and quality controls to comply with Stipulation 3.6.1. shall be submitted in accordance with Stipulation 1.6.

3.6.3. A monitoring system shall be developed by the COMPANY in accordance with 49 CFR, Part 192, and approved by the FEDERAL INSPECTOR. This system shall be operational prior to transmission of GAS through the PIPELINE.

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